DOCUMENT RESUME

ED 141 646 CE 012 106

AUTHOR	Bechtel, Jody; And Others
TITLE	Emergency!! A Core Curriculum for Continuing Education in Emergency Care.
INSTITUTION	Bryan Memorial Hospital, Lincoln, Nebr.; Nebraska Regional Medical Program, Lincoln.
SPONS AGENCY	Health Resources Administration (DHEW/PHS), Bethesda, Md. Div. of Regional Medical Programs.
PUB DATE	Aug 75
GRANT	5-G03-RM-000068-03A4
NOTE	83p.
EDRS PRICE	MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS	Behavioral Objectives; *Core Curriculum; Curriculum Guides; *Health Occupations Education; Hospitals; *Medical Education; *Medical Services; *Medical Treatment; Professional Continuing Education
IDENTIFIERS	*Emergency Care

ABSTRACT

Intended as a guide for developing emergency medical-care training, these six curriculum outlines have been used and adapted to the personnel development needs of both the rural community hospital and the large metropolitan hospital. The outlines are preceded by a discussion of the principles of learning by John George, who emphasizes the importance of the learner's direct involvement and participation at all levels of curriculum planning and implementation. Each outline then presents a broad objective for every subtopic, a summary outline of content for that part of the program, and a list of behavioral objectives to be completed. The first of six outlines covers general information on emergency medical services including studies in the organization and staffing of the emergency room, the communications, policies and protocol, and legal considerations. Outlines 2, 3, 4, and 5 cover emergency care for patients with respiratory problems, with cardiac problems, in trauma, and involved in other medical emergencies. Finally, the guide concludes with study outlines in the special categories of burn therapy, pediatric emergencies, obstetrical emergencies, and psychiatric emergencies. (BM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED141646

Emergency!!

"A CORE CURRICULUM FOR CONTINUING EDUCATION IN EMERGENCY CARE"

Authors

JODY BECHTEL RN

Director of Critical Care Education, Bryan Memorial Hospital, Lincoln, Nebraska

Project Coordinator, Nebraska Regional Medical Life Support Personnel Training Program

SUE BOOTH, RN

Lincoln Area Mobile Critical Care Nurse

Assistant Project Coordinator, Nebraska Regional Medical Life Support Personnel Training Program

LINDA SWANSON, RN

Lincoln Area Mobile Critical Care Nurse

Nurse Consultant, Nebraska Regional Medical Life Support Personnel Training Program

AUGUST, 1975

Published By

Cardiac-Respiratory Services
Bryan Memorial Hospital, Lincoln, Nebraska
in cooperation with
Nebraska Regional Medical Program

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

DE 012186

DEDICATION

To our children

Bradly and Brian
Michael, Soli, Matthew, Marni, Karen
and Denise
Sumi and Tracy

May they share tomorrow what we give today.

Development of this publication was supported by Grant Number 5 G03 RM 00[illegible]68 03A4 from the Division of Regional Medical Programs. Its contents are solely the responsibility of the Nebraska Regional Medical Program and are in no way the responsibility of the Division of Regional Medical Programs, the Health Resources Administration, or the Department of Health, Education and Welfare.

INTRODUCTION

Emergency medical service — a fantasy or reality? Unfortunately, it is more frequently the former rather than the latter. However, the day of inadequately trained and prepared emergency personnel is numbered as more intense demands of the public are going to make emergency care a definite reality.

The 1960's experienced the revelation of coronary care units. There were many outgrowths from the development of such units. The in-hospital cardiac mortality rate was greatly decreased. It was discovered and realized that many cardiac catastrophes could be averted or prevented if immediate diagnosis and treatment of the situation were made. In order for immediate treatment to occur, it was realized that the nurse would have to receive extra training and skill in an area that had heretofore been strictly avoided. Nurses gained confidence in their ability to perform effectively and quickly under the guidelines and support of policies and protocols sanctioned by their hospitals and physicians. A whole new era of medical knowledge and nursing involvement flowered!

The 1970's is to be the age of emergency care and treatment. The thrust is on! Emergency medical technicians are being prepared to handle the critical emergency on the spot with more thoroughness and expertise than ever before. Nurses and physicians are deceiving themselves that they can be any less prepared when the EMT's deliver the seriously ill or injured patient to our emergency department — regardless of whether it be a small community or large municipal hospital. The responsibility is ours! But yet, intense or thorough training programs for emergency department personnel are a rarity. By all rights the ER nurse should be the front-line critical care nurse — prepared for the multitude of "emergencies" as they hit the door. However, most orientations to emergency departments consist of "sink or swim" type situations that are most traumatic to patient and personnel alike!

Southeast Nebraska is not unlike many areas — interested and concerned in improving emergency care; but unsure as to how to begin or where to begin. Thus in 1974 a federal grant through Nebraska Regional Medical Program provided that funds would be set aside with the primary purpose of training emergency personnel. The first step in this venture was to visit with the twenty-five hospitals in southeast Nebraska in an attempt to do a "needs analysis" of the situation. Administrators, Directors of Nursing, In-service Directors, and staff personnel were questioned as to where **they** felt the impetus of emergency care was directed and if they felt comfortable with their preparation to fill the role effectively. The hospitality and cooperativeness of the individuals in these hospitals who assisted with our survey were most encouraging, helpful, and commendable. The sharing of experiences was enlightening as it became very apparent that the needs of the smaller community hospital were quite different than those of the larger metropolitan hospital. The methods of achieving a solution to these needs were also multiple and complex. However, it was our firm belief that there had to be a common, basic amount of knowledge that was required in order for emergency personnel to operate with a certain degree of effectiveness. It was with this conviction that we arrived at Step #2.

Step #2 involves the primary content of this publication — the identification of that basic amount of knowledge that should lend emergency personnel a certain degree of expertise and knowledge in the rapidly advancing specialty of providing emergency care. Countless hours of researching articles, interviewing a variety of emergency "specialists," evaluating information that we were obtaining, and finally this publication have all proven to be an arduous, but worthwhile learning experience for all involved.

It is hoped and anticipated that these outlines will be used *in toto*, or in capsules as needed, as guidelines for instituting curriculums directed at the training or continuing education of emergency personnel. It is not without some degree of authority that we can vouch for the value of such curriculums as we were actively involved in the presentation of twenty-five one day workshops pertaining to topics of emergency care in the southeast area of Nebraska after our "needs analysis" survey was completed and evaluated. These outlines **were used and adapted** to the needs of both the small rural community hospital, as well as those of the metropolitan hospital with a significant amount of effectiveness. It should be pointed out that not only do you wish for the student to have the basic knowledge that is required, but that he/she also **be able to perform** to a level that demonstrates an understanding of that knowledge. It is for this reason that the objectives and content of the curriculum are presented side by side. The main objectives provide a broad overview of the

direction to proceed in the development of the course. The behavioral objectives specify the level of performance that is expected of the student upon completion of the course.

After defining the content that is felt to be pertinent to the subject, it is necessary to identify those individuals that might serve in presentation of the content material. These resource persons may be physicians, practicing nurses, respiratory therapists, emergency medical technicians, ambulance personnel, educators, etc. It seems important to suggest that the specialty of emergency care has been delegated to a wide variety of health professionals. It is not strictly a "Registered Nurse's bag" or the "EMT's bag." Instead it should be realized that a genuine respect and continuity of care can be nurtured when a climate of mutual acknowledgement is accepted and encouraged as resource people are being identified.

Presentation of content material should be as innovating and stimulating as feasible. It proved to be our experience that practicum sessions allowing the student to actually put to test his newly acquired knowledge and skills were most popular and impressive. Many of these experiences might be achieved through patient contact when possible; however, it is unrealistic to rely totally on this type of experience for the student. Simulated experiences proved to be a bit more reliable and predictable for the teaching situation, particularly when patient experience could not be depended upon (i.e. small rural hospital). It may task the ingenuity of the instructors to provide simulated experiences, but is definitely worth the effort when the students' response to this type of teaching technique is assessed.

Constant evaluation and adaptation of these evaluations to your course curriculum is an absolute must. Material incorporated in the latter part of this text is offered with the desire that it will be helpful when dealing with this portion of your endeavors.

ACKNOWLEDGEMENTS

As with most publications, the actual production usually depends upon many factors. **Emergency: A Core Curriculum for Continuing Education in Emergency Care** is no exception to the rule. The planning, organization, and implementation of the Life Support Personnel Training Program as sponsored by the Nebraska Regional Medical Program gave birth to the idea and conception of this text. Nurses, EMT's, and physicians from southeast Nebraska shared their ideas, concerns, expertise, and enthusiasm in emergency care with us. We thank them for the valuable time that they spent with us.

For his contribution to the development of the units dealing with Respiratory Emergencies, we would like to recognize Lyle Engstrom, ARRT, Director of the Respiratory Therapy Technician School, Bryan Memorial Hospital, Lincoln, Nebraska.

J. W. Upright, Ed.D. and John George, B.S. of the Southeast Nebraska Health Education Consortium were most unselfish with their time, patience, and encouragement as we began to shape our vision into a reality.

For their involvement spent critiquing the curriculum content, we would like to acknowledge the following consultants:

Robert Buchman, M.D. Thoracic Surgery
Stephen Carveth, M.D. Thoracic Surgery
Charles Barton, M.D. ENT Specialty
David Dyke, M.D. Gastroenterology
Vernon Garwood, M.D. Internal Medicine
Robert Gillespie, M.D. Surgery
G. W. LeWorthy, M.D. Plastic Surgery
Steve Petroconis, R. Ph. Pharmacy
Robert Osborne, M.D. Psychiatry
J. G. Rogers, M.D. Obstetrics
Harlan Shriner, M.D. Pediatrics
Robert Snyhorst, M.D. Urology
James Styner, M.D. Orthopedics
Wesley Tomhave, M.D. Internal Medicine
James Wickless, D.D.S. Oral Surgery
Charles Wilson, M.D. Cardiology
Stuart Winston, M.D. Neurosurgery
George Wolcott, M.D. Neurology
Larry Woods, M.D. Opthamology

We should also like to express our gratitude to Pat Lambrecht, Pat Schafer, and Sue Williams, the secretaries who spent many hours at their typewriters in promotion of our cause.

And finally, we wish to say "Thank You!" to the Nebraska Regional Medical Program for making this entire project a possibility.

PRINCIPLES OF LEARNING

By JOHN GEORGE, B.S. Assistant Coordinator
Area Health Education Consortium — Southeast Nebraska

Underlying the success of a project of this nature was the fact that it was designed and conducted utilizing several basic educational principles. In order to gain a fuller understanding of how an educational endeavor such as this utilizes some basic educational principles in its design and development, a review of those principles is necessary. It is difficult in a limited space to adequately review all of the educational principles that have come out of learning theory in the past 100 years. However, an attempt will be made to list and summarize the most important principles to the education of the adult learner.

The first principle and probably the most significant is the principle that **learning depends upon motivation.** The learner must be motivated to learn and ultimately the desire to learn must come from within the learner himself. It is the responsibility of the classroom instructor, course designer, or facilitator to create the proper type of environment and conditions that will be conducive to motivating the learner. Several techniques were utilized in this project to accomplish this. The first technique was the use of a needs analysis. This allows the learner to participate in exploring the educational needs of his own and other learners. This process allows the individual to make a self-discovery concerning their own needs. If the learner does not accept the need for the education and training then the learner will not be motivated to participate and assume responsibility for their own learning.

Another important principle is that **learning depends upon a capacity to learn.** Any educational planning must proceed upon the basic assumption that people no matter what their age are capable of learning. Few adults who are performing adequately in handling their job assignments are incapable of new learning. Related to this principle is the next principle which is that **the educational experience must be meaningful to the learner.** The learner must feel that the educational experience relates in some way to a problem that the learner has encountered or perceived and that the actual course offering must be suited to some degree to the individual learners capability to perceive his age, his interest, his readiness, and his capacity to understand. Unless the learner sees the relevance of the data to his problem he will be unable to use the data and its solution. A shared responsibility of the learner and the teacher is to create a climate in which the learner can see meanings. This is a creative search both for the learner and the teacher. Meanings do not come passively to a nonparticipative learner.

Learning depends upon the active involvement of the learner. Active involvement in the learning process is even more important for effective learning in adults than it is in children. Action is fundamental in the creation and maintenance of interest in learning new knowledge and skills. When adults are kept in a passive dependent role in which the teacher tells them what they should know, their interest rapidly dwindles. However, it is important to recognize that activity is not something to be carried on just for its own sake. If learners are called on to be active, they will profit from the specific activity only to the extent that it makes sense to them. The essence or central idea behind the activity must relate to what the learners themselves perceive as to their interests and needs, either as they exist at present or as they are foreseen for the relatively near future. When the activity is perceived as relevant the knowledge that it is intended to convey is learned much more quickly and permanently than that which is absorbed passively.

Learning must be experienced-centered. All sensory input to the organism is of course experience. The problem for the teacher who is to develop a climate for learning is to help provide the optimal kinds of experience that will relate to the problems of the learner. The learner must get data upon his problem. The data may come from experiences relevant to the problem, from authorities who may tell of their experiences, from logical argument, or from direct sensory experiences of the learner. A joint responsibility of a teacher and the learner is to create a climate which allows the learner to accept the experience as learningful.

The learner must be free to look at the experience. Much has been written about the appropriate climate for learning. This climate is described in various ways as permissive, supportive, accepting, free, spontaneoeus, reality-centered, or person-centered. Learning is essentially a social experience. Learners learn from others in a social situation. The learner who is emotionally and psychologically free to look at experience is ready to start on the process of acquiring the necessary behavior in which to learn and to grow. For learning

to proceed creatively and optimally the learner must be adjusted emotionally to the learning situation, the teacher, the fellow students, and to the classroom climate.

The goals must be set and the search organized by the learner. Several experiments indicate that the active learner is a more effective learning organism than the passive learner. In order that problems be problems to the learner it is significant that the goals of the broad learning quest be set by the learner. It is also significant that the learner participate in the organization of the total learning situation. This is often accomplished by the establishment of a curriculum committee composed of people who will be directly involved in the learning situation. This allows individuals to participate in the course design, the setting of objectives, and the constructing of educational situations. When this approach is followed, the result will be a highly motivated seeker of knowledge.

The last principle is that **learning effectiveness is dependent upon feedback.** Evaluation of progress toward goals particularly when goals have been set the learner is highly important. Some indications of success or failure, some frame of reference for determining adequacy of problem solutions, some corroboration that the alley is not blind, some reality factor with which to assess one's achievement against one's level of aspiration, some knowledge of success or failure, all are necessary in the functional feedback process. The basic intention of feedback is to motivate learning. Feedback accomplishes this by rewarding the learner through recognizing his contributions to the class through validating that he is on the right track and through helping him to identify the additional knowledge or skill that he needs to enhance both his self-satisfaction and his value as a student. To achieve these ends the learning situation must be constructed with liberal opportunities for feedback. The instructor has the critical responsibility for developing these opportunities.

It can then be summarized from the above principles that in order to have an effective learning experience the learner must be involved and participate at all levels of the design and implementation of the educational activity. It is essential that the learner discover the problem and its solution from within and that the learner participate in developing and implementing the solution and be given adequate feedback towards the achievement of the solution. If this is not done the educational setting will be marked by poor attendance, lack of motivation, and general sarcasm on the parts of the learners themselves.

The Process of Learning

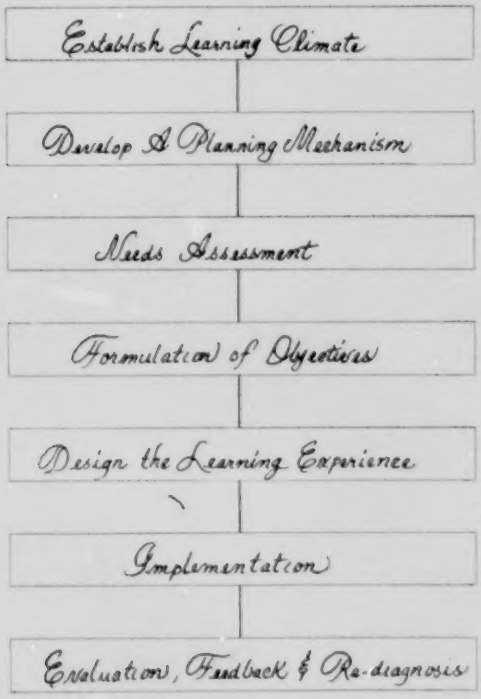

TABLE OF CONTENTS

TOPIC	PAGE NO.
Introduction	3
Acknowledgements	5
Principles of Learning	7
Contents	9
General Information:	
Emergency Medical Services	11
Organization and Staffing of the Emergency Room	12
Changing Role of the Emergency Department Nurse	14
Communications	15
Establishing Policies and Protocols for Emergency Care	17
Value of History	19
Legal Considerations	20
Respiratory Emergencies	
Anatomy and Physiology of the Pulmonary System	22
Assessment of the Patient with Respiratory Distress	22
Physiological Changes with Respiratory Disease	23
Manifestations of Respiratory Disease	23
Emergency Management	24
Common Causes of Respiratory Emergencies:	25
—Asthma	25
—Chemical or Thermal Injury of the Respiratory Tract	26
—Chest Trauma	27
—Pulmonary Edema	27
—Acute Respiratory Infections	28
—Respiratory Arrest	28
—Near Drowning	28
—Acute Respiratory Failure in Chronic Lung Disease	29
—Pulmonary Embolus	30
—Carbon Monoxide Poisoning	30
Emergency Cardiac Care	
Essential Components of Cardiac Care in the Emergency Department	31
Cardiac Anatomy and Physiology	31
Assessment Skills	32
Introduction to Electrocardiography	32
Coronary Artery Disease	34
—Contributing Factors	34
—Angina	34
—Acute Myocardial Infarction	34
—Congestive Heart Failure	35
—Cardiogenic Shock	35
—Cardiac Arrest	35

TOPIC PAGE NO.

Trauma

Initial Observation Pertaining to the Trauma Patient 37
Respiratory Trauma 37
Circulatory Insult 38
Skull and Brain Injuries 39
Soft Tissue Injuries 40
Eye Emergencies 42
Oral Emergencies 43
Nasal Emergencies 44
Ear Emergencies 45
Neck and Spinal Cord Injuries 45
Chest Injuries 46
Abdominal Trauma 47
Genitourinary Trauma 48
Extremity Trauma 49
Tetanus Toxoid Administration 50

Medical Emergencies

Management of Shock 52
Drug Intoxication 53
Poisonings 54
Anaphylaxis 55
Dissecting Aneurysm 56
Hypertensive Crisis 57
Gastrointestinal Hemorrhage 58
Ketoacidosis and Coma 59
Unconscious Patient 62

Special Categories

Burn Therapy 66
—Classification of Burns 66
—Assessment 66
—Primary Management 67
Pediatric Emergencies 69
Obstetrical Emergencies 72
Psychiatric Emergencies 74

Appendix ..... following p. 75

Reference Material ..... i through viii

I. General Information

A. Emergency Medical Services

Main Objective

Upon completion of the course the student will be able to identify and define a community's responsibility to provide an effective emergency care system.

CONTENT	BEHAVIORAL OBJECTIVES
A. Emergency Medical Services	
1. Definition of an Emergency 2. Components of a Community Emergency Medical System a. Communication b. Transportation c. Man-power d. Facilities e. Training f. Finances	Define what elements constitute an emergency. List and discuss the essential components and organization of a community emergency medical system.
3. Standards of Emergency Care a. Standards for Emergency Ambulance Services b. Standards for Emergency Services in Hospitals—JCHA c. American Heart Association Standards on Cardiac Pulmonary Resuscitation d. Recommended Standards for Development of Emergency Medical Services System	Identify and interpret established standards of emergency care and compare the level of care provided in her community with those standards.
4. Trends Affecting Emergency Services a. Advances in technology and industrialization b. Increase in public awareness of health needs c. Availability of financial assistance through insurance and federal funds d. Limited availability of physicians	Explain what factors have affected change in emergency services over the past 20-30 years.
5. Role of the Hospital a. Providing emergency care b. Improving emergency care in the community	Discuss the role the hospital in a community as related to providing and improving emergency care.

Main Objective

Upon completion of the course the student will be able to: Demonstrate knowledge of principles and guidelines utilized to improve organization and staffing of an emergency department.

CONTENT	BEHAVIORAL OBJECTIVES
B. Organization and staffing of the Emergency Department	
1. Standards for Hospital Emergency Service	Identify sources for standards of emergency care.
a. Standard for Accreditation of Hospitals b. Emergency Service in Hospitals, A.H.A. c. Accidental Death and Disability (National Academy of Sciences, National Research Council) d. Guidelines for Design and Function of a Hospital Emergency Department (American College of Surgeons, Committee on Trauma)	Discuss the primary guidelines to be considered in meeting established standards for hospital emergency care.
2. Facilities	Evaluate the facilities and services in a given emergency department as they compare to established standards for hospital emergency care.
a. Location b. Ventilation c. Communication d. Lighting	
3. Component Units of an Emergency Department	List and describe the various components which should be considered in designing or evaluating the emergency room facility.
a. Entrance b. Waiting Room c. Registration Area d. Nursing Physician Station e. Examination Rooms f. Utility Rooms g. Storage h. Conference Room i. Special Areas 1) Observation room 2) Resuscitation room 3) Surgery room 4) Fracture room j. Support Services 1) X-ray 2) Clinical laboratory 3) Pharmacy	
4. Equipment	List the essential drugs and equipment that should be available to any emergency department.
a. Respiratory: 1) Airways 2) Bag-valve mask (Resuscitator) 3) Oxygen 4) Suction 5) Intubation Equipment 6) Ventilator 7) Tracheostomy tray & tubes 8) Chest tubes and suction	

I. General Information

B. Organization and Staffing of the Emergency Department (Cont.)

9) Thoracentesis tray
b. Cardiac:
1) Monitor
2) Defibrillator
3) Pacemaker
4) Drugs: Sodium Bicarbonate
Epinephrine
Atropine
Lidocaine
Morphine
Isuprel
Calcium Chloride
5) IV Fluid Life Line
c. Trauma:
1) Cutdown tray
2) IV fluids-plasma expanders
3) Pressure bandages
4) Cast material
5) Suture trays
6) Traction equipment
7) Splints
8) Lumbar puncture tray
d. Eye-Ear-Nose-Throat
1) Opthalmoscope-Otoscope
2) Nasal packing, cautery
3) ENT instruments
4) Eye treatment & Exam tray
e. Upper GI—Abdominal
1) Levine—gastric lavage
2) Esophogeal balloon
3) Paracentesis tray
f. Poisoning:
1) Gastric lavage
2) Poison control stock

5. Personnel and Their Roles
a. Medical staff responsibility
b. Hospital Administration responsibility
c. Nursing Administration responsibility
d. Nursing Staff responsibility
e. Auxiliary staff responsibility

Outline and discuss the roles and responsibilities of the medical staff, hospital administrator, nursing staff, auxiliary staff to the emergency department.

6. Staffing Patterns
a. Medical coverage
b. Nursing coverage
c. Emergency coverage

Discuss three possible staffing patterns used to provide staffing for an emergency department.

7. Personnel Training
a. Orientation program
b. Continuing educational programs for staff
c. Training programs for personnel in expanded roles

Outline a basic orientation program for new employees in an emergency unit.

8. Records
a. Patient log
b. Patient's chart
c. Diagnostic and treatment requests
d. Special incident reports

Discuss the types of records necessary in an emergency department and their purposes.

I. General Information

9. Auditing for quality care
   a. Medical audit
   b. Nursing audit

B. Organization and Staffing of the Emergency Department (Cont.)

Explain the purpose of medical and nursing audits of emergency care.
Describe a method used to provide medical and nursing care auditing of emergency care.

Main Objective

Upon completion of the course the student will be able to: Demonstrate knowledge of the expanding responsibilities and challenges of emergency care.

CONTENT	BEHAVIORAL OBJECTIVES
C. Changing Role of Emergency Department Nurse	
1. New Roles in Medicine	Describe the new roles in medicine which are emerging in emergency care.
a. Nurses	
1) Practicioners	
2) Clinicians	
3) Specialists	
b. Physicians Assistants	
c. Paramedics and E.M.T.'s	
1) Specialized training	
2) Effect on pre-hospital morbidity	
2. Expanding Role of Nurses	Explain the factors which are contributing to the expanded roles of nurses.
a. Concept	
1) Based upon decision making process and action upon those decisions.	
2) Independently licensed professionals responsible for own actions.	
b. Organizational Support	
1) Congress of International Council of Nurses	
a. Emphasizes autonomy and independence.	
b. Code of Ethics altered to encourage nurses using own judgment and independence.	
2) American Nurses Association	
3) Emergency Department Nurse's Assoc.	
4) American Association of Critical Care Nurses	
c. Era of "Physicians Handmaiden" Disappearing	
1) Correlation of female male relationships and Nurse Doctor relationships	
2) Masculine traits + feminine traits = full human potential.	
3) Balance of mutual respect.	
3. Emergency Department Nurses	List the desired qualities of an emergency department nurse.
a. Desirable Qualities	
1) Decisive	
2) Versatile	
3) Confident	
4) Skillful	
5) Compassionate and empathetic	

14

I. General Information

6) Demonstrate expertise in:
- a) Pediatrics
- b) Trauma
- c) Cardiology
- d) Counseling
- e) Teaching
- f) Directing traffic

b. Build on Previous Knowledge
- 1) Look beyond vital signs, compare and correlate data and ask "Why?"
- 2) Seek rational base for interpretations and actions.
- 3) Enhance skills
  - a) More sophisticated use of stethoscope.
  - b) Utilizing EKG monitor and appropriate action.
  - c) Developing assessment skills
- 4) Independent study
  - a) Workshops and seminars
  - b) EDNA

c. Exciting Challenge of Emergency Room
- 1) Realize potential
- 2) Dare to be great

C. Changing Role of E. D. Nurse (Cont.)

Recognize the responsibility which an emergency department nurse must assume in her new role.

Main Objective

Upon completion of the course the student will be able to: Relate to the broad and demanding expectations of an emergency medical system.

CONTENT

BEHAVIORAL OBJECTIVES

D. Communications

1. Communications with John Q. Public

a. Public Image vs. Emergency Room
- 1) Gateway to the Hospital
  - a) Concept of a hospital may originate in an emergency room
  - b) Large number and variety of people that make contact with an emergency room
- 2) Crisis Center
  - a) "Emergency" is the name—whether you think so or not!
  - b) Inadequacies on the part of E.R. personnel will be quick to surface and add to the strain of the moment
    - (1) In the true emergency
    - (2) In the false emergency
- 3) Psychological Trauma Prevention Center
  - a) In dealing with children
  - b) In preparing a family that a patient's outoutlook is bleak

List at least three images that the public has of an emergency room.

Name at least four emergency room situations in which a nurse can attempt to prevent psychological trauma.

I. General Information

D. Communications (Cont.)

c) In case of disfigurement
d) In the event of a rape case
e) In dealing with abortions
f) In dealing with guilt feelings

b. Patient Teaching Opportunities

Identify at least three patient teaching opportunities available in an emergency room.

1) General health tips
2) Specific discharge instructions
3) Basic first aid measures

Main Objective

Upon completion of the course the student should be able to: Improve communication and continuity of care through more precise emergency room records.

2. Communications Through Charting

a. Routine Information That Every E.R. Record Should Contain

Outline the routine information that should be found on every E.R. record.

1) Personal Information
   a) Name, age, sex, marital status, occupation
   b) Address and phone number
2) Time of admission and discharge
3) Reconstruction of Injury or Illness
   a) When
   b) Where
   c) How
   d) How long before arrival at emergency room
   e) Nature of impact
4) Pertinent and legible history
5) Diagnostic procedures done
6) Physician's findings
7) Treatment and disposition of problem and referrals
8) Instructions for follow-up care
9) Signature of treating physician and attending nurse
10) Patient's health insurance carriers
11) Whom to bill for emergency service

b. Importance of Accuracy and Continuity of Charting

Give two reasons why accuracy and continuity of charting is essential in emergency room.

1) Protection of patient
2) Protection of emergency personnel

c. Specific Suggestions to Improve Charting

List at least three specific suggestions for improving charting.

1) Accurate accounting of time intervals
   a) Patient's arrival
   b) When physician examined patient
   c) Times that you called the physician
   d) Time of discharge
2. Obtaining permission to treat minors
   a) When family absent
      (1) Telephone consent
      (2) Written consent
   b) Identification of person signing consent

I. General Information

3) Make a chart on every patient that comes to E.R.
   a) Untreated patients
   b) Patients refusing treatment
4) Charting should relay frequent patient monitoring
   a) Frequent vital signs
   b) Attached ECG strips
   c) Chart in chronological order
   d) Attach a sheet if more is needed
   e) Use specific terms with specific meanings
5) Think of consequences
   a) For patient—think in syndromes
   b) Legal implications of situations

D. Communications (Cont.)

Main Objective

Upon completion of the course the student will be able to: Identify areas in which emergency care can be improved by the use of policies and protocols, and initiate the development of such policies and protocols.

CONTENT	BEHAVIORAL OBJECTIVES
E. Establishing Policies and Protocols for Emergency Care	
1. Policies	
a. Definition	
b. Purpose	Define and discuss the purpose of having policies for an emergency department.
1) Guidelines for staff	
a) Orientation	
b) Education	
c) Reference	
2) Provide a "plan of action" for special situations	
c. Fundamental Principles	List the fundamental principles to be considered when developing emergency department policies and protocols.
1) Should specifically define situation to be covered	
2) Purpose should be clearly and briefly expressed	
3) Duties and responsibilities of personnel affected should be clearly outlined	
4) Policies should be flexible enough to meet changing needs	
5) New policies should be carefully interpreted to individuals affected by the contents	
d. Situations Requiring Policies in the Emergency Department	
1) Administrative Policies	Identify areas requiring policies in the emergency department.
a) Purpose and scope of services to be provided	
b) Organizational structure	
(1) Medical Policies	
(2) Staffing Plan	
(3) Job Description	

I. General Information

c) Procedure for securing medical coverage when necessary
d) Stipulation of clinical privileges of medical staff members

2) Medical Management Policies
a) Definition
b) General classification and management of various types of patients.
(1) Class I—Seriously injured or life threatening emergencies
(2) Class II—Injured patients or medical emergency not life threatening
(3) Class III—Minor injuries or illnesses non-emergency

e. General Operational Policies
1) Direction for locating and procuring equipment, supplies, and services
2) Regulations regarding record keeping, patient information, emergency room log
3) Regulations governing
a) Reporting information to press or others
b) Handling valuables of the patient
c) Reporting information to appropriate authorities concerning
(1) Contagious diseases
(2) Coroners
(3) Animal bites
(4) Sudden or violent death or injury
(5) Assault
(6) Rape
(7) Poisoning
(8) Drug Abuse
(9) Suicide
d) Treatment of minors
4) Clearly understandable information covering details of charges
5) Guidelines established to provide for review and audit of emergency records on a specific time-table

2. Protocols of Medical Management
a. Definition
b. Purpose
c. General Guidelines
1) Provide specific directions for the nurse to identify and react to life threatening emergencies prior to the physicians arrival
2) Designed by the medical staff with the assistance of the nursing staff
3) Reviewed and updated annually

E. Establishing Policies and Protocols for Emergency Care (Cont.)

Evaluate a given set of Emergency Department policies and revise them to include:
* administrative policies
* medical management policies
* general or operational policies

Define and discuss the purpose of having protocols of medical management in an emergency department.

Outline guidelines to be considered in the development of medical management protocols.

4) Available to all medical and nursing staff affected by them
5) Situations described when the nurse should initiate the protocol and the level of training required for her to carry out the protocol (i.e. Defibrillation, Endotracheal Intubation, etc.)

d. Situation requiring Protocols of Treatment
1) Cardiac Arrest
2) Respiratory Arrest
3) Shock
4) Acute Burn
5) Poisoning
6) Multiple Trauma
7) Possible Coronary
8) Severe Respiratory Distress

List type of emergency situations requiring a protocol of medical management.

Develop a protocol for two emergency situations.

Main Objective

Upon completion of the course the student will be able to: Demonstrate an ability in obtaining and evaluating patient's history as it relates to providing emergency care.

CONTENT

BEHAVIORAL OBJECTIVES

F. Value of History

1. Purpose of History Taking
   a. Assist in accurate diagnosis
   b. Expedite immediate care
   c. Provide pertinent information concerning past or existing illness or injury
2. Source of History
   a. Patient
   b. Family
   c. Witnesses
   d. Rescue personnel
   e. Previous records
3. Components of History
   a. Patient
      1) Patient information
      2) Chief complaint and related circumstances
      3) Any previous incidents of similar nature
      4) Allergies, other illness, current medication, previous hospitalization
   b. Family Witness, etc.
      1) Possible single source of history for unconscious or incoherent patient
      2) Provides supplemental information to patient history
      3) Change in patient's condition since onset of illness or injury
   c. Rescue Personnel

List three primary reasons for accurate history taking.

Identify sources of obtaining history concerning the patient's illness or injury.

Describe the essential components of a history which should be obtained to facilitate prompt and appropriate emergency care.

19

I. General Information

1) Observations noted at scene of emergency
2) Changes in patient condition
3) Care provided prior to arrival at hospital

4. Interviewing Techniques
   a. Direct and non-direct techniques
   b. Verbal and non-verbal techniques

F. Value of History (Cont.)

Demonstrate in a clinical situation interviewing techniques used to obtain a history of a patient in the emergency room.

Main Objective:
Upon completion of the course the student will be able to: Have a basic realization of potential litigation situations involved during administration of emergency care and methods to safeguard against it.

CONTENT	BEHAVIORAL OBJECTIVES
G. Legal Considerations	
1. Definitions	
a. Negligence	Define the following and give examples of each:
1) Specific elements of negligence	* Negligence
2) Defense of negligence	* Informed Consent
b. Consent	* Emancipated Minor
1) Types	* Emergency Consent
a) Oral vs. written	* Assault
b) Specific vs. general	* Battery
c) Scope of patient's authorizations	* Defamation
d) Informed consent	
2) Specific Consent Requirements	
a) Conscious Adult	
b) Unconscious or incompetent adults	
c) Minors	
d) Emancipated minors	
e) Emergency situations	
3) Other Situations	
a) Refusal of a patient to consent	
b) Release form	
c) Consent for an abortion	
c. Intentional Wrongs	
1) Assault	
2) Battery	
3) False Imprisonment	
4) Invasion of privacy	
5) Defamation	
a) Libel	
b) Slander	
c) Defense	
d. Good Samaritan Law	

20

I. General Information

2. Legal Reporting Obligations
   a. Abused children
   b. Communicable disease
   c. Gunshot wounds
   d. Reports of criminal acts
      1) Suicide
      2) Criminal abortions
      3) Assaults
      4) Rapes
      5) Illegal dispensing or taking of narcotics
3. Protection Against Litigation
   a. Policies and protocols
      1) Situations needing protocols
      2) Establishing policies and protocols
      3) Importance of physician-nurse rapport
   b. Medical Records
   c. Patient Teaching Responsibilities

G. Legal Considerations (Cont.)

List the legal responsibility of the ER nurse in the following situations:

* Abused children
* Communicable disease
* Gunshot wounds
* Criminal Acts
  * Suicide
  * Criminal abortions
  * Assault
  * Rape
  * Illegal dispensing or taking of narcotics

Draw up a protocol pertaining to a specific emergency situation applicable to their specific needs.

Critique and evaluate effectiveness and thoroughness of emergency room charting and submit suggestions of how to improve charting.

Name at least three patient teaching situations possible in an emergency room.

21

II. Respiratory Emergencies

A. Anatomy and Physiology of Pulmonary System

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of respiratory anatomy and physiology.

CONTENT	BEHAVIORAL OBJECTIVES
A. Anatomy and Physiology of Pulmonary System	
1. Anatomy	Describe the gross anatomical structure of the respiratory system.
a. Upper respiratory tract	
b. Lower respiratory tract	
c. Anatomy of trachea, bronchi, bronchioles, respiratory bronchicles, alveolar ducts, lobules.	
2. Pulmonary Circulation	List the components of pulmonary circulation.
a. Pulmonary artery	
b. Bronchial artery	
c. Pulmonary venules	
d. Pulmonary pressures	
e. Diffusion	
3. Pulmonary Physiology	Discuss normal pulmonary physiology as it applies to ventilation, diffusion, transport of O_2, CO_2, control of ventilation, mechanics of respiration, respiratory pressures, surfactant, lung and thoracic compliance, mechanics of breathing and lung volume.
a. Ventilation/perfusion	
b. Diffusion	
c. Transport of O_2, CO_2	
d. Control of ventilation	
4. Mechanics of Respiration	
5. Respiratory Pressures	
6. Surfactant	
7. Compliance	
8. Mechanics of Breathing	
9. Lung Volumes	
10. Diffusion	

Main Objective:
Upon completion of the course the student will be able to: Identify through assessment skills, normal and abnormal clinical findings as they apply to respiratory function, and evaluate their effect on the patient.

CONTENT	BEHAVIORAL OBJECTIVES
B. Assessment of the Patient with Respiratory Distress	
1. Chest Physical Diagnosis	Describe the skills of inspection, palpation, percussion, ausculatation, in assessing a patient's respiratory status.
a. Inspection	
b. Palpation	
c. Percussion	
d. Auscultation	
2. Signs and Symptoms	Through the use of assessment skills, be able to evaluate a patient's clinical signs and symptoms such as:
a. Cough	a. Cough
b. Expectoration	b. Expectoration
c. Hemoptysis	c. Hemoptysis
d. Chest pain	d. Chest pain
e. Dyspnea	e. Dyspnea
f. Breathing patterns	f. Breathing patterns

II. Respiratory Emergencies

g. Constitutional changes
   1) fever
   2) chills
   3) tuberculosis
   4) carcinoma

h. Digital clubbing
i. Venous distention
j. Shape of thorax

3. Laboratory Assessment
   a. Arterial blood gases
      1) PaO_2
      2) $PaCO_2$
      3) PH
   b. Hematology
      1) Hemoglobin
      2) White count
      3) Sedimentation rate
   c. Electrocardiography
      1) Cor Pulmonale
      2) Pulmonary Embolism
      3) Hypoxia
   d. Vital capacity and tidal volume
4. Radiological
   a. Cardiac
   b. Lungs
   c. Diaphragm
5. Non-respiratory System Evaluation
   a. Nervous system
   b. Cardiovascular system
   c. Gastrointestinal system
   d. Metabolic system

B. Assessment of the Patient with Respiratory Distress (Cont.)

g. Constitutional changes

Digital clubbing
Venous distention
Shape of thorax

List the various types of diagnostic tests utilized to determine the patient's pulmonary status in an emergency situation.

Explain how the diagnostic values may be altered in a respiratory emergency, and the significance of the abnormal values.

Discuss the purpose of radiological assessment in evaluating and diagnosing a respiratory problem.

List the types of respiratory problems which can be identified through radiological assessment.

Describe and discuss nervous, cardiovascular, gastro-intestinal, and metabolic changes which occur as a result of respiratory dysfunction.

Main Objective:
Upon completion of the course the student will be able to: Explain the physiological changes which occur in respiratory disease.

CONTENT	BEHAVIORAL OBJECTIVES
C. Physiological Changes with Respiratory Disease 1. Increased physiological shunting 2. Increased physiological deadspace 3. Increased work of breathing 4. Decreased oxygen transport in blood	Describe and discuss pulmonary physiological changes which can result in respiratory distress.

Main Objective:
Upon completion of the course the student will be able to: Identify and interpret manifestations of respiratory distress.

CONTENT	BEHAVIORAL OBJECTIVES
D. Manifestations of Respiratory Distress 1. Hypoxia a. Causes	List four clinical manifestations and possible causes of respiratory distress.

II. Respiratory Emergencies

b. Signs and symptoms
c. Pathophysiology

2. Hypercapnia
   a. Causes
   b. Pathophysiology
   c. Signs and symptoms
3. Hypotension
   a. Causes
   b. Pathophysiology
   c. Signs and symptoms
4. Dyspnea
   a. Causes
   b. Pathophysiology
   c. Signs and symptoms

D. Manifestations of Respiratory Distress (Cont.)

Describe the signs and symptoms present with hypoxia, hypercapnia, hypotension, and dyspnea.

Discuss the physiological changes which occur in respiratory distress.

Identify hypoxia, hypercapnia, hypotension, and dyspnea in a patient seen in the E.R.

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of principles and skills in the emergency management of respiratory distress.

CONTENT	BEHAVIORAL OBJECTIVES
E. Emergency Management	
1. Establishment of a Patent Airway a. Without adjuncts	Describe and discuss adjunctive equipment and techniques necessary to establish and maintain a patent airway.
b. With adjuncts 1) Oral pharyngeal airways 2) Esophageal obturator airway 3) Endotracheal tube 4) Mechanical aspiration a) Suctioning b) Gastric tube c) Bronchoscopy 5) Tracheostomy	List indications for the use of the various adjuncts to establish and maintain a patent airway. Demonstrate in a laboratory practicum skills in establishing and maintaining a patent airway with and without adjunctive equipment.
2. Oxygen Therapy a. Rationale b. Indications c. Evaluation of therapy	Explain the purpose and indications for oxygen therapy. Evaluate the effectiveness of oxygen therapy of a patient by assessing his signs and symptoms and evaluating changes in lab values.
d. Complications 1) Respiratory depression 2) Circulatory depression 3) Atelectasis 4) Substernal pain 5) Retrolental Fibroplasia 6) Oxygen toxicity	Explain and identify complications which can be caused by oxygen therapy.
e. Techniques of oxygen therapy 1) Nasal cannula 2) Nasal catheter 3) Face mask (various types) 4) Humidification	* Discuss the indications for the use of the oxygen nasal cannula, nasal catheter, face mask, and humidification. * Describe and demonstrate the techniques used in the application of the nasal cannula, cath, masks, and humidification.

24

II. Respiratory Emergencies

3. Artificial Ventilation
   a. Indications
   b. Maintainence of blood gases
      1) Oxygenation
      2) Ventilation
      3) Acid/base status
   c. Controlled or assisted ventilation

   d. Complications of artificial ventilation
      1) Atelectesis
      2) Pulmonary infections
      3) Hyperventilation
      4) Hypoventilation
      5) Reduced cardiac output
      6) Fluid retention
      7) Alveolar rupture

   e. Equipment
      1) Mouth to mouth
      2) Manually operated
      3) Pressure cycle devices
      4) Timed cycle devices
      5) Volume cycle devices

4. Drug Therapy

   a. Bronchodilators
      1) Aerosol route
      2) Intravenous route
      3) Complications
   b. Mucous liquifying agents
      1) Adequate hydration
      2) Mucolytic agents
      3) Surface-acting agents
   c. Corticosteroids
   d. Respiratory stimulants
   e. Buffer agents
5. Methods of Improving Pulmonary Compliance
   a. Patient position
   b. Ventilatory pattern
   c. Chest tube insertion

E. Emergency Management (Cont.)

Describe the indications for artificial ventilation.

Discuss the importance of maintaining normal blood gas values in artificial ventilation.

Define the terms controlled and assisted ventilation.

List the possible complications of artificial ventilation and describe how they might by manifested by a patient.

* Identify the equipment available for use in providing artificial ventilation.
* Discuss the indications for selecting the appropriate device to be used.
* Demonstrate use of the technique or equipment used in providing artificial ventilation.
* List the criteria used to evaluate the effectiveness of the equipment used.

List the types of drugs used in the management of a respiratory emergency.

Explain the action, indication, preferred mode of administration, dosage, and toxic manifestations of frequently used:
* Bronchodilators
* Mucous liquifying agents
* Corticosteroids
* Respiratory stimulants
* Buffer agents

Describe and discuss how pulmonary compliance can be improved by altering ventilatory patterns and insertion of chest tubes.

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of causes, pathophysiology, clinical manifestations, and immediate management of the respiratory emergencies commonly seen in the E.R.

CONTENT	BEHAVIORAL OBJECTIVES
F. Common Causes of Respiratory Emergencies	
1. Asthma	List and define the four stages of asthma.

25

II. Respiratory Emergencies

F. Common Causes of Respiratory Emergencies (Cont.)

a. Stages
   1) Acute attack
   2) Latent asthma
   3) Intractable asthma
   4) Status Asthmaticus

Identify possible causes of an acute attack.

b. Etiology

c. Pathophysiology

Discuss the pathophysiology which occurs in acute asthma and status asthmaticus.

d. Clinical Manifestations
   1) Mild response
   2) Severe response

Describe clinical manifestations of a mild and severe asthmatic attack.

e. Diagnostic Evaluation

Describe and interpret diagnostic tests (lab, x-ray, etc.) used in evaluating severity of an asthma attack.

f. Complications

List possible complications of asthma and identify their presence in a patient in the E.R.

g. Primary Management
   1) Positioning
   2) Oxygen therapy
   3) Sedation
   4) Adequate hydration
   5) Drug therapy

Outline and implement a plan of primary management for the patient with:
   * Acute asthmatic attack
   * Status asthmaticus

h. Secondary Management
   1) Patient education
   2) Allergy testing
   3) Drug therapy

Outline a plan of secondary management of the asthma patient including
   * Patient education
   * Allergy testing
   * Drug therapy

2. Chemical or Thermal Injury to the Respiratory Tract
   a. Causes
      1) Chemical
      2) Thermal

List the possible causes of chemical and thermal injury to the respiratory tract.

   b. Pathophysiology
      1) Chemical
      2) Thermal

Discuss the pathophysiological changes which occur in chemical and thermal injury to the respiratory tract.

   c. Clinical Manifestations
      1) Chemical
      2) Thermal

Describe the clinical signs and symptoms manifested in chemical injury and thermal injury to the respiratory tract.

   d. Primary Management
      1) Chemical
      2) Thermal

Develop a plan of primary management in the E.R. for the patient with
   * Chemical injury to respiratory tract
   * Thermal injury to the respiratory tract

Discuss the criteria used in evaluating the effectiveness of treatment.

   e. Secondary Management

Outline a plan for secondary management.

II. Respiratory Emergencies

1) Chemical
2. Thermal

3. Chest Trauma
   a. Etiology

   b. Pathophysiology
      1) Hemothorax
      2) Pneumothorax
      3) Sucking chest wounds
      4) Fractured ribs and sternum
      5) Flail chest
      6) Wet lung syndrome
      7) Cardiac tamponade

   c. Clinical manifestations
      1) Hemothorax
      2) Pneumothorax
      3) Sucking chest wounds
      4) Fractured ribs and sternum
      5) Flail chest
      6) Wet lung syndrome
      7) Cardiac tamponade

   d. Primary Management
      1) Maintaining an adequate airway
      2) Control of hemorrhage
      3) Treat for shock
      4) Initiate appropriate management for:
         a) Hemothorax
         b) Pneumothorax
         c) Sucking chest wounds
         d) Fractured ribs and sternum
         e) Flail chest
         f) Wet lung syndrome
         g) Cardiac tamponade

   e. Review of equipment and techniques used in the management of chest trauma
      1) Oxygen therapy
      2) Suction
      3) Endotracheal intubation
      4) Chest tube insertion
         a) Pleural decompression
         b) Underwater seal drainage
         c) Mechanical suction
      5) Mechanical ventilator

4. Pulmonary Edema
   a. Causes
   b. Pathophysiology

F. Common Causes of Respiratory Emergencies (Cont.)

Discuss the possible mechanisms which can result in chest trauma.

Explain the pathophysiological changes which occur in
* Hemothorax
* Pneumothorax
* Sucking chest wounds
* Fractured ribs and sternum
* Flail chest
* Wet lung syndrome
* Cardiac tamponade

Identify the signs and symptoms manifested in:
* Hemothorax
* Pneumothorax
* Sucking chest wounds
* Fractured ribs and sternum
* Flail chest
* Wet lung syndrome
* Cardiac tamponade

Determine by observation and physical examination immediate priorities of care for the patient with chest trauma.
Outline and initiate a plan of action for
* Airway management
* Control of hemorrhage
* Treating shock
* Emergency Management of:
  * Hemothorax
  * Pneumothorax
  * Sucking chest wound
  * Fractured ribs and sternum
  * Flail chest
  * Wet lung syndrome
  * Cardiac tamponade

List the equipment necessary for the management of chest trauma.
Discuss the indications for the use of each type of equipment necessary in managing chest trauma.
Discuss the principles and demonstrate the techniques utilized in management of the equipment necessary to provide emergency treatment of chest trauma.

List the possible causes of pulmonary edema.

Discuss the physiological changes which occur in pulmonary edema.

27

II. Respiratory Emergencies	F. Common Causes of Respiratory Emergencies (Cont.)
c. Clinical manifestations	List and identify in a patient signs and symptoms manifested in pulmonary edema.
d. Primary Management (refer to section on cardiac emergencies)	Given a patient in acute pulmonary edema, outline and initiate an appropriate plan of treatment.
	Through continued observation and assessment, evaluate the effectiveness of the treatment.
	Describe the factors to be considered in caring for the patient following the acute emergency period.
5. Acute Respiratory Infections a. Causes 1) Viral 2) Bacterial	List the possible causes of acute respiratory infections.
b. Pathophysiology	Discuss the physiological changes which occur in acute respiratory infections.
c. Clinical Manifestations	List and identify in a patient signs and symptoms manifested in acute respiratory infections.
d. Primary Management	Given a patient with acute respiratory infection outline and initiate an appropriate plan of treatment.
	Through continued observation and assessment, evaluate the effectiveness of the treatment.
	Describe the factors to be considered in caring for the patient following the acute emergency period.
6. Respiratory Arrest a. Causes	List the possible causes of respiratory arrest.
b. Pathophysiology	Discuss the physiological changes which occur in respiratory arrest.
c. Clinical Manifestation	List and identify in a patient signs and symptoms manifested in respiratory arrest.
d. Primary Management	Given a patient in respiratory arrest, outline and initiate an appropriate plan of treatment.
	Through continued observation and assessment, evaluate the effectiveness of the treatment.
	Describe the factors to be considered in caring for the patient following the acute emergency period.
7. Near Drowning a. Causes	List the possible causes of drowning.
b. Pathophysiology 1) General considerations a) acute asphyxia	Discuss the physiological changes which occur and differentiate between fresh water, salt water, and chlorinated water.

b) acidosis
c) fluid and electrolyte changes
d) arterial hypoxemia

2) Freshwater aspiration
a) ventricular fibrillation
b) rapid hypervolemia
c) metabolic acidosis
d) atelectasis

3) Salt water aspiration
a) ventricular fibrillation
b) hypovolemia
c) metabolic acidosis
d) atelectasis

4) Chlorinated water aspiration

c. Primary Management
1) Basic life support
2) Endotracheal intubation
3) Suctioning
4) 100% oxygen with positive pressure
5) Arterial blood gases and correct acid base disturbances
6) Urinary output measurements
7) ECG and CVP monitoring
8) Fluid management

Given a patient with near drowning outline and initiate an appropriate plan of treatment.

Through continued observation and assessment, evaluate the effectiveness of the treatment.

d. Secondary Management
1) Chest x-ray
2) Laboratory tests
3) Drug therapy
a) steroids
b) drug therapy
c) antibiotics
d) diuretics

Describe the factors to be considered in caring for the patient following the acute emergency episode.

8. Acute Respiratory Failure in Chronic Lung Disease

a. Causes

List the possible causes of chronic lung disease.

b. Pathophysiology

Discuss the physiological changes which occur in chronic lung disease.

c. Clinical Manifestations
1) Signs and symptoms
2) Diagnostic tests

List and identify in a patient signs and symptoms manifested in chronic lung disease.

d. Primary Management

Given a patient with chronic lung disease, outline and initiate an appropriate plan of treatment.

Through continued observation and assessment evaluate the effectiveness of the treatment.

e. Secondary Management
1) Patient Education
2) Rehabilitative factors

Describe the factors to be considered in caring for the patient following the acute emergency period.

29

II. Respiratory Emergencies

F. Common Causes of Respiratory Emergencies (Cont.)

9. Pulmonary Embolus
   a. Causes
      1) Predisposing factors
      2) Source of origin
      3) Composition of thrombi

List the possible causes of a pulmonary embolus.

   b. Pathophysiology

Discuss the physiological changes which occur in a patient with a pulmonary embolus.

   c. Clinical Manifestations
      1) Signs and symptoms
      2) Laboratory findings
      3) X-ray
      4) ECG findings

List and identify in a patient signs and symptoms manifested by a pulmonary embolus.

   d. Primary Management
      1) Oxygen
      2) Anticoagulants
      3) Control of pain
      4) Treatment of shock
      5) Surgery

Given a patient with a pulmonary embolus, outline and initiate an appropriate plan of treatment.

Through continued observation and assessment evaluate the effectiveness of the treatment.

Describe the factors to be considered in caring for the patient following the acute emergency period

10. Carbon Monoxide Poisoning
   a. Causes

List the possible causes of carbon monoxide poisoning.

   b. Pathophysiology

Discuss the physiological changes which occur in a patient with carbon monoxide poisoning.

   c. Clinical Manifestations
      1) Signs and symptoms
      2) Evaluate history in relation to symptoms

List and identify in a patient, signs and symptoms manifested by carbon monoxide poisoning.

   d. Primary Management
      1) Rapid diagnosis
      2) High oxygen concentrations
      3) Gastric lavage (possibility of overdose also present)
      4) Fluid life line

Given a patient with carbon monoxide poisoning, outline and initiate an appropriate plan of treatment.

   e. Secondary Management
      1) Dependent on degree of hypoxia
      2) Mannitol, Dextrose 10%
      3) Steroid therapy

Through continued observation and assessment evaluate the effectiveness of the treatment.

III. Emergency Cardiac Care

A. Essential Components of Cardiac Care in the Emergency Room

Main Objective:
Upon completion of this course the student should be able to: Demonstrate a basic knowledge of the essential components necessary to provide quality emergency cardiac care (ECC).

CONTENT	BEHAVIORAL OBJECTIVES
A. Essential Components of Cardiac Care in the Emergency Department	
1. Policies and protocols used in the Management of the Cardiac Emergency	Discuss the primary guidelines which policies and protocols should provide in the management of the cardiac emergency.
2. Minimal Equipment and Supplies a. Oxygen b. Suction c. Monitoring equipment (ECG) d. Defibrillator e. Airways, esophageal obturator f. Bag-valve mask, oxygen powered respirator g. Cardiac arrest board h. I.V. fluids and intracath, needles i. Endotracheal tubes, laryngoscope j. Pacemaker, pacemaker catheters (transvenous and transthoracic) k. Central venous pressure set l. Emergency drugs (refer to references) m. Emergency call system	List minimal equipment and supplies necessary to have readily available in the ED to provide emergency cardiac care (ECC).
3. Staff Training and Continued Inservice a. Cognitive knowledge b. Skills	Outline the primary knowledge and skills ER personnel should be trained in to provide ECC.

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of cardiac anatomy and physiology as it pertains to the acutely ill or injured patient.

CONTENT	BEHAVIORAL OBJECTIVES
B. Cardiac Anatomy and Physiology	
1. Anatomy a. Gross characteristics of the heart (atrium, valves, ventricles, etc.) b. Electrical conduction system c. Circulation	Describe the anatomical structure of the heart, electrical conduction system, and major vessels.
2. Physiology a. Properties of cardiac tissue b. Mechanical activity c. Measurement of cardiac function d. Nervous control	Discuss basic cardiac physiology as it applies to the acutely ill or injured patient.

C. Assessment Skills

Main Objective:
Upon completion of the course the student will be able to: Identify through assessment skills normal and abnormal clinical findings as they apply to cardiac function.

CONTENT	BEHAVIORAL OBJECTIVES
C. Assessment Skills	
1. Cardiac Assessment	Demonstrate skills of observation, palpation, auscultation and evaluations in the assessment of cardiac function.
a. Observation	
b. Palpation	
c. Auscultation	
2. Identifying priorities	Identify through use of assessment skills the immediate priorities of care in the acutely ill or injured patient.
a. Airway adequacy	
b. Cardiac function	
c. Bleeding	
3. Circulatory Assessment	
a. Evaluation of pulse	
1) quality, rate, regularity	
2) apical pulse	
3) peripheral pulse	
b. Evaluation of blood pressure	Utilize techniques of assessment to identify and evaluate normal and abnormal cardiovascular function as it relates to the pulse, blood pressure, pulmonary system, venous pressure, peripheral circulation, neurological status, and cardiac arrhythmias.
1) significance of change in diastolic	
2) significance of change in systolic	
3) significance of change in pulse pressure	
c. Evaluation of pulmonary status	
1) respiratory rate	
2) character	
3) chest excursion	
4) breath sounds etc.	
d. Evaluation of peripheral circulation	
1) central venous pressure	
2) skin, color, temperature	
e. Neurological Assessment	
1) pupil reaction	
2) reaction to stimulus	
3) level of consciousness	
f. Evaluation of cardiac arrhythmias	

Main Objective:
Upon completion of the course the student should be able to: Demonstrate knowledge of electrocardiography as it relates to identifying arrhythmias, determining causes, and initiating appropriate nursing action and treatment.

CONTENT	BEHAVIORAL OBJECTIVES
D. Introduction to Electrocardiography	Demonstrate basic knowledge of electrocardiography by:
1. Cardiac Conduction System	* Explaining the cardiac conduction system and how it relates to the electrical and
a. Normal pathways, sequence of conduction, and electrophysiology	

III. Emergency Cardiac Care

b. Origin of EKG complex (P, QRS, T waves), normal morphology, intervals, etc.

2. Basic Arrhythmia Recognition
   a. Site of pacemaker focus
      1) SA node
      2) atrium
      3) AV node
      4) ventricles
   b. Mechanism of pacemaker
      1) bradycardia
      2) tachycardia
      3) flutter
      4) fibrillation
      5) conduction defect
      6) premature beats
      7) arrest
3. Arrhythmia Interpretation
   a. Basic steps
      1) calculate the rate
      2) note the regularity
      3) identify the P waves
      4) note the PR interval
      5) note the QRS duration and morphology
      6) determine the ratio of P/QRS
4. Causes and Manifestations of Arrhythmias
   a. Possible causes
   b. Signs and symptoms resulting from hemodynamic changes
   c. Arrhythmia classification
      1) Sinus
         a) Normal sinus rhythm
         b) Bradycardia
         c) Tachycardia
         d) Arrhythmia
         e) Arrest
      2) Atrial:
         a) Premature contractions
         b) Tachycardia
         c) Flutter
         d) Fibrillation
      3) AV Nodal:
         a) Premature beats
         b) Junctional rhythm
         c) Tachycardia
      4) Ventricles:
         a) Premature contractions
         b) Tachycardia
         c) Fibrillation
         d) Asystole
      5) Heart Blocks:
         a) First degree
         b) Second degree Mobitz type I (Wenkebach)

D. Introduction to Electrocardiography (Cont.)

mechanical activity of the heart.

* Describing the four basic sites where a pacemaker might originate and the mechanism which they may demonstrate.

Identifying arrhythmias by:

* Listing the six basic steps used to interpret arrhythmias.
* Utilizing the six steps to interpret the arrhythmias.

Determine causes of arrhythmias by:

* Listing possible causes
* Identifying accompanying symptoms
* Classifying arrhythmias according to their
  * pacemaker origin
  * mechanism of action
  * minor or major effect on cardiac function

33

III. Emergency Cardiac Care

D. Introduction to Electrocardiography (Cont.)

c) Mobitz type II
d) Third degree
e) AV disassociation
6) Aberrancy in Conduction

5. Arrhythmia Management
   a. Nursing intervention
   b. Choices of management

Demonstrate basic knowledge of arrhythmia management by:

* Discussing the possible choices of treatment for each arrhythmia.
* Selecting and initiating the appropriate nursing action or treatment for each arrhythmia.
* Evaluating the effectiveness of the action taken or treatment provided.

Main Objective:

Upon completion of the course the student will be able to: Demonstrate knowledge of principles and skills in recognizing a cardiac emergency and providing emergency cardiac care.

CONTENT	BEHAVIORAL OBJECTIVES
E. Coronary Artery Disease	
1. Contributing factors a. Risk factors b. Problems in early recognition and treatment	Describe and discuss possible contributing factors which prevent patients from seeking and receiving prompt emergency care. List risk factors which can predispose to coronary artery disease. Identify risk factors in the patient by utilizing observation, patient history and physical examination.
2. Clinical Conditions a. Angina 1) Signs and symptoms 2) Pathophysiology 3) Laboratory findings 4) Treatment b. Acute Myocardial Infarction 1) Signs and symptoms 2) Pathophysiology 3) Clinical history 4) Diagnostic tests 5) Primary management a) Relief of pain b) Adequate oxygenation c) Fluid life line d) Vital sign and ECG monitoring e) Arrhythmia treatment f) Emotional support 6) Secondary management a) Continuous observation and monitoring	In each of the following clinical conditions: angina, acute myocardial infarction, congestive heart failure, cardiogenic shock, cardiac arrest * Discuss pathophysiology * List and identify signs and symptoms * Given a patient with each of the clinical conditions, outline and initiate an appropriate plan of treatment, utilizing skills of basic and advance life support. * Through continued observation and assessment, evaluate the effectiveness of treatment. * Describe the factors to be considered in caring for the patient following the acute emergency period.

III. Emergency Cardiac Care

b) Early recognition of impending complications.

c. Congestive Heart Failure (Acute Pulmonary Edema)
1) Pathophysiology
2) Clinical picture (signs and symptoms)
3) Primary management
a) Reduction of central and total blood volume
1) Rotating tourniquets
2) Diuretic therapy
b) Improve arterial oxygen saturation
1) Oxygen administration
2) Semi-Fowlers position
3) Positive pressure breathing
4) Sedation (Morphine sulfate)
5) Bronchodilators
6) Significance of arterial blood gases
c) Improve cardiac function
1) Digitalis
2) Monitoring for arrhythmias and initiate appropriate therapy

d. Cardiogenic Shock
1) Pathophysiology
2) Clinical picture
3) Primary management
a) Improve left ventricular function
1) Inotropic drugs
2) Venous and arterial monitoring
b) Improve tissue perfusion and oxygenation
1) Oxygen administration
2) Combat lactic acidosis
3) Monitor hourly urinary output
4) Role of vasopressors (pro and con)
4) Nursing responsibility
a) Notify the physician
b) Initiate oxygen per mask at 8-10 liters
c) Initiate fluid life line
d) Insert indwelling urinary catheter and monitor hourly outputs
e) Frequent monitoring of vital signs
f) Constant ECG monitoring

e. Cardiac Arrest
1) Recognition
a) Signs and symptoms of cardiopulmonary arrest
(1) death producing arrhythmias
(2) clinical evaluation of patient
b) Identification of causative factor
2) Primary management

E. Coronary Artery Disease (Cont.)

35

III. Emergency Cardiac Care

a) Basic Life Support
  (1) mouth-to-mouth ventilation
  (2) closed chest compression
b) Advanced Life Support
  (1) use of airway adjuncts
    (a) oral airways
    (b) suctioning techniques
    (c) bag-mask valve
    (d) esophageal airway
    (e) endotracheal intubation
  (2) Monitoring techniques
    (a) selection of appropriate lead
    (b) application of electrodes
  (3) Initiating fluid life line
    (a) intercaths
    (b) subclavian catheter
    (c) internal jugular puncture
    (d) femoral puncture
  (4) Defibrillation
    (a) indications
    (b) proper technique
    (c) synchronized cardioversion
  (5) Arrhythmia recognition and treatment
  (6) Emergency use of the artificial pacemaker
    (a) indications
    (b) types
    (c) method of insertion
    (d) nursing care
      1) pre operative
      2) post operative
  (7) Post arrest care
    (a) blood gas analysis
    (b) ventilatory support
    (c) nursing assessment
    (d) support of the patient and family

E. Coronary Artery Disease (Cont.)

IV. Trauma

A. Initial Observations Pertaining to the Trauma Patient

Main Objective:
Upon completion of the course the student will be able to: Demonstrate a systematic approach toward assessment of the multiple injured patient.

CONTENT	BEHAVIORAL OBJECTIVES
A. Initial Observations Pertaining to the Trauma Patient	
1. Identifying Priorities a. Airway adequacy b. Circulatory status c. Control of bleeding d. Head injuries e. Neck and spinal injury f. Chest injuries g. Abdominal injuries h. Extremities	List a specific plan for evaluating the multiple injured patient and choosing priorities of care.
2. Developing a Plan of Action	
3. History of Injury a. Chief complaint b. Mechanism of injury	Name several ways that the mechanism of an injury can give clues toward diagnosis and treatment of injuries.
4. Patient History a. Allergies b. Previous illness or operations c. Pre-existing disease d. Medications presently taking e. Prosthetic devices	Give specific reasons why a patient's history is an essential part of his overall treatment.

Main Objective:
Upon completion of the course the student should be able to: Demonstrate a knowledge of respiratory assessment skills and primary management for respiratory trauma.

CONTENT	BEHAVIORAL OBJECTIVES
B. Respiratory Trauma	
1. Etiologic Factors a. Airway obstruction b. Tracheal laceration or perforation c. Respiratory irritation d. Chest injuries	List specific causes of respiratory trauma.
2. Assessment of Respiratory Function a. Verification of air exchange b. Observing respiratory movement c. Color d. Position of trachea e. Discomfort	Demonstrate various methods of assessing the respiratory system, such as * ausculation * percussion * inspection * palpation
3. Primary Management a. Insuring airway adequacy without adjuncts	Be able to identify priorities of care pertaining to respiratory problems utilizing assessment skills.

37

IV. Trauma

b. Oxygen therapy
4. Secondary Management
   a. Insuring airway adequacy with adjuncts
   b. Laboratory studies
   c. Drug therapy

B. Respiratory Trauma (Cont.)

Be able to demonstrate use of respiratory adjuncts in a clinical or laboratory situation such as:
* Use of bag-valve mask
* Use of Elder valve
* Intubation equipment
* Esophageal airway
* Oxygen tanks, masks, and cannulas
* Suctioning techniques
* Oropharyngeal airways

Correlate laboratory studies to patient's situation.

Name anticipated drugs, their action, and toxic side effects as pertaining to respiratory trauma.

Main Objective:
Upon completion of the course the student should be able to: Demonstrate a knowledge of the principles and basic skills necessary to care for circulatory emergencies.

CONTENT	BEHAVIORAL OBJECTIVES
C. Circulatory Insult	
1. Etiological Factors	
a. Hemorrhage	Explain types of circulatory insults and the mechanism causing the ultimate dysfunction.
1) External	
2) Internal	
b. Cardiac tamponade	
c. Cardiac disturbance	
1) MI	
2) Arrhythmia	
3) Cardiac Arrest	
2. Assessment of Circulatory Function	
a. Vital signs	Demonstrate methods of assessing circulatory status and their correlation with clinical manifestations.
1) Pulse	
2) Blood pressure	
3) Respiratory	
4) Temperature	
b. Vital observations	
1) Pupils	
2) Skin color	
3) Skin temperature	
4) State of consciousness	
5) Paralysis or loss of sensation	
6) Reaction to pain	
7) Abdominal rigidity	
8) Bleeding from orifices	
9) Vomitus	
3. Primary Management	
a. Maintenance of Effective, Palpable circulation	Become certified in Basic Life Support.
1) Basic Life Support	
2) Definitive therapy	Outline the recommended definitive therapy for life threatening circulatory problems.

38

IV. Trauma

b. Control of Bleeding
   1) External bleeding
   2) Internal bleeding
c. Establishment of a life line
   1) Types
   2) Techniques
   3) Complications

4. Secondary Management
   a. Blood Volume Restoration
      1) Frequently used solutions
      2) Proper positioning
      3) Adjunctive drugs
      4) CVP monitoring
   b. Control of Pain
      1) Indications
      2) Methods
      3) Dangers

C. Circulatory Insult (Cont.)

Demonstrate technique and principle behind establishing lines—with particular reference to the
* Use of intracaths
* Use of the external jugular vein
* Availability of sub-lingual route or endotracheal route.

Main Objective:
Upon completion of the course the student should be able to: Identify through knowledge of etiological factors, assessment skills, and management how to approach the head injured patient.

CONTENT	BEHAVIORAL OBJECTIVES
D. Skull and Brain Injuries 1. Types a. Open 1) linear 2) depressed fracture 3) exposing fracture 4) penetrating fracture b. Closed 1) concussion 2) bruising 3) pressure a) subdural b) epidural c) intracerebral	Name types of skull and brain injuries and the mechanism behind the injury.
2. Assessment a. State of consciousness b. Dynamic state of consciousness 1) Initial consciousness followed by unconsciousness 2) Continued unconsciousness from time of injury c. Vital signs 1) Rapid elevation of intracranial pressure 2) Further rise in intracranial pressure/ decompression	Identify specific ways of assessing skull and brain injuries and their correlation with clinical symptomatology.

39

d. Headache and vomiting
e. State of cranial nerves
f. Paralysis
g. Convulsions
h. Decerebrate rigidity
i. Restlessness

3. Primary Management
   a. Maintenance of adequate respiration
      1) Methods of opening airway
      2) Proper positioning
      3) Use of oxygen
   b. Check for and stabilize associated neck injuries
   c. Treatment for drainage from brain
   d. Treatment of open wounds
      1) Irrigation
      2) Bandaging
      3) Management of foreign bodies (glass, bullets, etc.)
   e. Treatment of impaled objects
4. Secondary Management
   a. Reduction of cerebral edema
      1) Fluid restriction
      2) Use of steroids
   b. Monitoring urinary output
   c. Control of bleeding
   d. Control of seizures
   e. Diagnostic evaluation
      1) Roentgenographic
      2) Lumbar puncture

Outline the recommended primary and secondary management of skull and brain injuries.

Main Objective:
Upon completion of the course the student should be able to: Demonstrate a knowledge of the basic principles of wound care.

CONTENT

BEHAVIORAL OBJECTIVES

E. Soft Tissue Injuries

1. Types
   a. Open or sharp
      1) Abrasion
      2) Laceration
      3) Avulsion
      4) Puncture wound
   b. Closed or blunt
      1) Contusion
      2) Hematoma
2. Assessment
   a. Adequacy of airway
      1) Upper airway obstruction
      2) Severe brain damage affecting respirations
   b. Verifying extent of hemorrhage

List types of soft tissue injuries.

IV. Trauma

c. Question when last tetanus immunization given
d. Appropriate history

3. Primary Management
   a. Keeping airway open
      1) Removing obstructions
      2) Proper positioning
      3) Proper suctioning
      4) Mechanical airway insertion
      5) Indirect pressure
   b. Control of bleeding
      1) Direct pressure
      2) Proper dressings
      3) Treatment of impalements
      4) Use of ice
      5) Indirect pressure
   c. Assume neck injuries
   d. Maintain blood volume
   e. Cover large wounds with sterile dressings
   f. Splint obvious and suspected fractures
4. Secondary Management
   a. Basic wound care
      1) Obtain x-ray for suspected foreign objects
      2) Adequate use of anesthesia and aseptic technique
      3) Cleanse surrounding skin
         a) Shave hair when indicated
         b) Dissolve grease with solvents
         c) Irrigate wound with saline
      4) Drape wound area
      5) Control bleeding
         a) Clamp bleeding vessels under direct vision
         b) Debride wound
            (1) Remove foreign material
            (2) Excise devitalized tissue
   b. Principles of wound closure
      1) Close wound without tension to prevent ischemia of wound edges
      2) An occlusive dressing which also splints the wound is indicated
      3) Wounds should remain under periodic observation for:
         a) Pain
         b) Discharge
         c) Odor
         d) Fever
      4) If the above signs of infection are present, removal of sutures and open wound drainage may be needed
      5) For clean puncture wounds
         a) Excise edge of the wound
         b) Drain
         c) Usually do not suture
      6) Avoid primary closure for
         a) Dirty, old or neglected wounds

E. Soft Tissue Injuries (Cont.)

Describe and demonstrate the initial management expected of the nurse in the treatment of soft tissue injuries.

Discuss basic principles of wound closure as they especially relate to:

* Puncture wounds
* Signs of infection
* Use of suture
* Wounds that should be left open
* Delayed Primary Closure

b) High velocity missile wounds
c) Wounds where adequacy of debridement is uncertain
d) In mass casualty situations
e) Human and animal bites—except for selected bites of the face in the hands of experienced surgeons

7. Delayed primary closure
   a. Adequate initial debridement of a clean wound
   b. Irrigation
   c. Remove any residual divitalized tissue and foreign body
   d. Stop all bleeding
   e. Close up to 5 days later using interrupted skin sutures, preferably without buried sutures

Main Objective:
Upon completion of the course the student will be able to: Display a knowledge of essential emergency eye care through assessment skills and basic nursing management.

CONTENT	BEHAVIORAL OBJECTIVES
F. Eye Emergencies	
1. Types	
a. Trauma	
1) Foreign objects	Name general types of injuries that might occur to the eye.
2) Lacerations and contusions	
3) Chemical, heat and light burns	
b. Medical	
1) Acute purulent conjunctivitis	
2) Corneal ulcer	
3) The red eye	
4) Central retinal artery occlusion	
5) Renal detachment	
2. Assessment	
a. Clinical Signs	List at least 6 clinical signs or symptoms denoting eye injury and explain what they might indicate.
1) Obvious foreign object protruding from globe	
2) Swollen or lacerated globe	
3) Bloodshot sclera	
b. Clinical Symptoms	
1) Distorted pupil	
2) Diplopia	
3) Anesthesia	
4) Rhinorrhea	
5) Diminished vision	
6) Sudden blindness	
7) Curtain blocking field of vision, coupled with light flashes or black spot	

IV. Trauma

8) Blue-green cast to eye
9) Radial spoke-like sunburst type infection sign

c. Diagnostic Adjuncts
1) Opthalmoscope
2) Precise history
3) Use of eye stains
a) when to use
b) dangers
4) Split lamp

3. Primary Management
a. Testing of best visual acuity
b. Irrigation
c. Management of pain
d. When to use drug therapy
1) Anesthesia
2) Cyclopegics
3) Mydriatics
4) Osmotic agents

4. Secondary Management
a. Roentgenographic studies
b. Tetanus prevention
c. When to use antibiotic—steroid opthalmic preparations
d. Referral to Opthamologist
e. Surgery

F. Eye Emergencies (Cont.)

Demonstrate how to check a patient's visual acuity.

Outline initial management of these specific eye emergencies:
* Global injuries
* Orbital injuries
* Retinal detachment
* Avulsed eye

Demonstrate basic skills in eye inspection and nursing management such as
* Irrigation techniques
* Eye lid eversion
* Eye dressings
* Medication instillation

Main Objective:
Upon completion of the course the student should be able to: Demonstrate knowledge of potential oral emergencies and the essential principles of their management.

CONTENT

G. Oral Emergencies

1. Types
a. Chipped or broken teeth
b. Missing teeth
c. Broken or dislocated jaw
d. Oral lacerations
e. Post op tooth extraction bleeding

2. Assessment
a. Examination of chipped or broken teeth
b. Importance of locating all dental fragments
c. Symptoms of fractured jaw

BEHAVIORAL OBJECTIVES

Name four oral emergencies that could be life threatening.

Indicate at least two symptoms of a fractured jaw.

IV. Trauma

3. Primary Management
   a. Keeping airway open
   b. Stop bleeding
   c. Proper stabilization of fractured jaw
   d. Proper wound care
   e. Care of evulsed teeth
4. Secondary Management
   a. Value of x-ray studies
   b. Tetanus immunization
   c. Control of pain
   d. Referral to dental surgeon
   e. Relocation of dislocated mandible

G. Oral Emergencies (Cont.)

Discuss the indications for the use of a Barton's head dressing, its possible contraindications, and demonstrate its application.

Main Objective:
Upon completion of the course the student should be able to: Display knowledge of nasal emergencies and essential principles of their management.

CONTENT	BEHAVIORAL OBJECTIVES
H. Nasal Emergency	
1. Types	
a. Epistaxis	List at least three types of nasal emergencies.
b. Fracture	
c. Hematoma	
d. Foreign objects	
2. Assessment	
a. Vital signs	
b. Evaluation of bleeding source	
c. Accurate history	
3. Primary Management	
a. Epistaxis	Discuss the nurse's responsibility for the primary management of these specific nasal emergencies * Epistaxis * Fracture * Foreign objects
1) Possible institutions of lifeline	
2) Proper positioning	
3) Control of bleeding	
a) Pressure	
b) Vasoconstrictors	
b. Fracture	
1) Control of bleeding	
2) Ice compresses	
c. Hematoma—Sterile drainage	
d. Foreign objects	
1) Proper sedation	
2) Anterior removal	
4. Secondary Management	
a. Epistaxis	
1) Use of anesthetic for discomfort	
2) Cauterization	
3) Hemoglobin and Hematocrit	
4) Surgical ligation	
b. Reconstructive Surgery	

IV. Trauma

I. Ear Emergencies

Main Objective:
Upon completion of the course, the student should be able to: Demonstrate a knowledge of emergency ear care.

CONTENT	BEHAVIORAL OBJECTIVES
I. Ear Emergencies	
1. Types	
a. Trauma	
1) Lacerations	List at least three potential ear emergencies and how the nurse might assess them.
2) Hematomas	
b. Foreign bodies	
c. Medical	
1) Acute Otitis Media	
2) Acute Mastoiditis	
2. Assessment	
a. Blood in the external ear canal	
b. Assessment of tympanic membrane	
c. Initial hearing evaluation	
3. Primary Management	
a. Trauma	
1) Lacerations	Demonstrate the following basic nursing skills pertaining to the care of the ear
b) control of bleeding	* Straightening of the ear canal
b) care of amputated portion	* adult
2) Hematoma-Sterile drainage	* children
b. Foreign body removal	* Ear irrigation
1) Adequate sedation	* Instillation of ear drops
a) of patient	
b) of large insect in ear	
2) Irrigation techniques	
c. Medical	
1) Relief of pain	
2) Indications for a myringotomy	
4. Secondary Management	
a. T.T. immunization	
b. Antibiotic coverage	
c. Reconstruction surgery	

Main Objective:
Upon completion of the course the student should be able to: Display a knowledge of the principles of neck and spinal cord assessment and emergency management.

CONTENT	BEHAVIORAL OBJECTIVES
J. Neck and Spinal Cord Injuries	
1. Types	
a. Neck injuries	Name at least four specific types of neck and spinal cord injuries.
1) Blunt injury	
a) collapsed trachea	
b) collapsed larynx	

IV. Trauma

2) Sharp injury
   a) bleeding from a vein
   b) bleeding from an artery
3) Whiplash

b. Spinal injury
   1) Upper vertebral damage
   2) Lower vertebral damage

2. Assessment
   a. Verification of air exchange
   b. Ability to voluntarily move the neck
   c. History of how the patient was found
   d. Signs of vertebral injury
   e. Complete body survey
3. Primary Management
   a. Establishment of air exchange
      1) Immediate positioning of head
      2) Airway maneuvers
      3) Adjuncts
   b. Control of bleeding
   c. Immobilization techniques
      1) Car accidents
      2) Diving injuries
      3) Log-rolling of unconscious patient
   d. Treatment of neurological shock
4. Secondary Management
   a. Radiological studies
   b. More permanent cervical traction
   c. Foley catheter placement
   d. Treatment of whiplash injuries
      1) x-ray
      2) cervical collars
      3) medications
   e. Surgical correction

J. Neck and Spinal Cord Injuries (Cont.)

Explain methods of assessing the potential neck and spinal injured patient.

Simulate immobilization techniques of the patient in the following situations:

* Car accidents
* Diving injuries
* Unconscious suspected spinal injured patient

Main Objective:

Upon completion of the course the student should be able to: Identify through knowledge of etiological factors, pathophysiological considerations and primary management how to care for the chest injured patient.

CONTENT

BEHAVIORAL OBJECTIVES

K. Chest Injuries

1. Types
   a. Closed
      1) Rib fractures
      2) Flail chest
      3) Traumatic asphyxia
      4) Cardiac tamponade
      5) Ruptured diaphragm
      6) Pneumothorax
      7) Hemothorax

List at least five specific causes of chest injury and the clinical symptoms that each might present.

IV. Trauma

b. Open
   1) Pneumothorax
      a) open pneumothorax (sucking chest wound)
      b) tension pneumothorax
   2) Hemothorax
   3) Impalements in chest

2. Assessment
   a. Recognition of general signs of chest injuries
      1) Dyspnea
      2) Failure of chest to expand
      3) Hemoptysis
      4) Shock
   b. Specific symptoms of specific chest injuries
      1) Rib fracture
      2) Flail chest
      3) Traumatic asphyxia
      4) Cardiac tamponade
      5) Ruptured diaphragm
      6) Sucking chest wound
      7) Tension pneumothorax
      8) Hemothorax
3. Primary Management
   a. Inflation of lungs
      1) Pulmonary resuscitation
      2) Correcting decreased lung volume
   b. Correction of ventilation perfusion inadequacies
      1) Hemothorax
      2) Pneumothorax
      3) Bronchial obstruction
   c. Control of bleeding
4. Secondary Management
   a. More permanent chest drainage
   b. Surgical intervention

K. Chest Injuries (Cont.)

Return a simulated demonstration of the:
* Principles and technique of inserting chest tubes
* Methods used for splinting flail chest or fractured ribs.

Main Objective:
Upon completion of the course the student should be able to: Display knowledge of feasible abdominal injuries and the nurse's primary responsibility in their management.

CONTENT	BEHAVIORAL OBJECTIVES
L. Abdominal Trauma	
1. Definitions	
a. Types of organs	Give the two broad classifications of organs found in the abdomen and at least three examples of each.
b. Types of injuries	
c. Possible specific injuries	
1) Lacerated liver	
2) Ruptured spleen	
3) Trauma to pancreas	

IV. Trauma

L. Abdominal Trauma (Cont.)

4) Torn mesentary
5) Diaphragmatic rupture
6) Urinary bladder rupture
7) Laceration of vena cava or aorta
8) Retroperitoneal hematoma or renal injury
9) Ruptured duodenum or jejunum
10) Gastric or colonic perforation
11) Injury to gallbladder
12) Injury to portal vein
13) Injury to the abdominal portion of esophagus
14) Pelvic fractures

2. Assessment
   a. Ventilation evaluation
   b. Evaluation for presence of shock
      1) Vital signs
      2) CVP monitoring
      3) Urine output
      4) Suspicious symptoms
   c. Nature of injury
      1) Assessment of penetration injuries
      2) Assessment of blunt injuries
      3) Complaint of pain
   d. Inspection of vomitus
   e. Diagnostic adjuncts
      1) Percussion
      2) Ausculation
      3) Inspection
      4) Palpation
      5) Abdominal paracentesis
      6) Lab studies

Outline specific assessments that should be considered in dealing with the possible abdominal injured patient.

3. Primary Management
   a. Assure adequate ventilation
   b. Protect against aspiration
   c. Control of external bleeding
   d. Treat for shock
   e. Primary wound care

Return a demonstration displaying the following skills:

* Percussion
* Ausculation
* Inspection
* Palpation
* Four-quadrant tap
* How to care for an eviseration
* Abdominal paracentesis

4. Secondary Management
   a. Insure airway
   b. NG suction
   c. Initiate lifeline
   d. Withhold narcotics or analgesics
   e. Urinary catheterization
   f. Establish an early diagnosis
   g. Possible surgical intervention

Main Objective:
Upon completion of the course the student should be able to: Demonstrate knowledge of possible genitourinary emergencies and their primary management.

CONTENT

BEHAVIORAL OBJECTIVES

M. Genitourinary Trauma

1. Types of Emergencies

IV. Trauma

a. Urinary bladder rupture
b. Pelvic fractures with shearing injury to urethra
c. Scrotal injuries
d. External genitalis injuries
e. Renal and ureteral trauma
f. Renal colic

2. Assessment
   a. Nature of injury
      1) Assessment of penetration injury
      2) Assessment of blunt injuries
   b. History of injury or illness
   c. Observations
      1) Complaint of pain
      2) Internal or external bleeding
      3) Vital signs
   d. Diagnostic adjuncts
3. Primary Management
   a. Control of obvious bleeding
   b. Primary wound care
   c. Relief of pain
4. Secondary Management
   a. Management of pelvic fractures
   b. Indications for catheters

M. Genitourinary Trauma (Cont.)

Identify at least four types of genitourinary emergencies.

Outline the primary management for treatment of the following:

* Urinary bladder rupture
* External genitalia injuries
* Renal colic

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of the skills of assessment and practice necessary for appropriate emergency care for extremity trauma.

CONTENT

N. Extremity Trauma

1. Types
   a. Fractures
   b. Dislocations
   c. Sprains
   d. Soft tissue injuries
   e. Amputations
2. Assessment
   a. Assess patient's total condition first
   b. General symptoms
      1) fractures
      2) dislocations
      3) sprains
   c. Importance of full history
      1) Cause of wound
      2) Was heat applied to wound?
      3) Wound contaminant
      4) Position of extremity at time of injury
   d. Evaluation of nerve or vascular injury

BEHAVIORAL OBJECTIVES

Name five types of extremity injuries.

Outline methods of assessing potential extremity trauma.

IV. Trauma

3. Primary Management
   a. Care of life-threatening emergencies
   b. Control of bleeding (amputation)
   c. Straighten severely angulated fracture that can be straightened safely
      1) Methods
      2) Exceptions to the rule
   d. Care of open wounds
   e. Principles of splinting
      1) Actions
      2) Methods
      3) Types of splints
      4) Dangers
4. Secondary Management
   a. Control of pain
   b. Reallignment
   c. Permanent stabilization

N. Extremity Trauma

Return a demonstration of the following skills:

* Methods of splinting through use of the following devices:
  * Hare splint
  * Pneumatic splints
  * Home-made emergency splinting
* Use of Ace wraps
* Cast care
  * when wet
  * pedaling a cast
  * potential dangers of casting

Main Objective:
Upon completion of the course the student will be able to: Demonstrate a knowledge of the methods of tetanus prophylaxis.

CONTENT

O. Use of Tetanus Prophylaxis

1. Types of Immunization Against Tetanus
   a. Active Immunization
      1. Tetanus toxoid
         a) Indications for use
         b) Contraindications
         c) Dosage
         d) Method of administration
      2. Diptheria-Pertussis-Tetanus Toxoid
         a) Indications for use
         b) Contraindications
         c) Dosage
         d) Method of Administration
      3. Diptheria-Tetanus Toxoid
         a) Indications for use
         b) Contraindications
         c) Dosage
         d) Method of Administration
   b. Passive Immunization
      1. Human Tetanus Immune Globulin
         a) Indications for use
         b) Contraindications
         c) Dosage
         d) Method of Administration
      2. Equine or Bovine Antitoxin
         a) Indications for use
         b) Contraindications

BEHAVIORAL OBJECTIVES

Name the two types of immunization that are used against tetanus and give examples of each.

List the three common types of toxoids given to provide active immunization, giving their indications, contraindications, dosages, and methods of administration.

Name the two types of passive immunization that might be given, their indications for use, contraindications, dosages, and methods of administration.

Demonstrate the technique used for skin testing an individual about to receive equine or bovine antitoxin.

IV. Trauma

c) Dosage
d) Method of Administration

2. General Principles of Tetanus Prophylaxis
   a. Individual patient evaluation necessary for all wounds
   b. Meticulous surgical care of wounds
   c. Adsorbed tetanus toxoid at time of injury
      1. As an initial immunizing dose
      2. As a booster for previous immunizations
      3. If there has not been a recall injection within the last 5 years
   d. Need for passive immunization evaluation
      1. Characteristics of wound
      2. Conditions under which it was incurred
      3. Treatment of wound
      4. Age of wound
      5. Previous active immunization status
   e. Written record of immunization should be provided for the patient
   f. Basic immunization should be encouraged for one and all
      1. Three injections of adsorbed tetanus toxoid
      2. A booster injection is indicated every ten years

O. Use of Tetanus Prophylaxis (Cont.)

Outline the general principles of tetanus prophylaxis as they relate to:

* Care of the wound
* Use of tetanus toxoid at time of injury
* Need for passive immunization
* Written records of immunization
* Basic immunization program

51

V. Medical Emergencies

A. Shock

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of basic principles and techniques used to assist in diagnosing and meeting the emergency needs of the patient in shock.

CONTENT	BEHAVIORAL OBJECTIVES
A. Shock	
1. Definition of shock	Define the term "shock".
2. Types of Shock	
a. Hemorrhagic	Explain the main types of shock.
1) Causes	Discuss the causes, pathophysiology, signs and symptoms of each type of shock.
2) Pathophysiology	
3) Signs and symptoms	
b. Cardiogenic	
1) Causes	
2) Pathophysiology	
3) Signs and symptoms	
c. Neurogenic	
1) Causes	
2) Pathophysiology	
3) Signs and symptoms	
d. Septic	
1) Causes	
2) Pathophysiology	
3) Signs and symptoms	
3. Emergency (Primary) Management	Explain and demonstrate assessment skills utilized in recognizing clinical manifestations of impending shock.
a. Establish and Maintain an Adequate Airway	
b. Assess Vital Signs	
c. Control External Bleeding if Present	
d. Initiate Fluid Life Line	Interpret observations and based on these observations, establish priorities in management.
1) Choices of catheter	
2) Choice of fluids	
e. Obtain Blood Samples	Outline and initiate a plan for emergency management.
1) Venous	
2) Arterial	
f. Value of CVP Measurement	
g. Insert Indwelling Catheter and Evaluate Urinary Output	
h. Drug Therapy	Evaluate the effectiveness of the action taken.
1) Digitalis	
2) Vasodialators vs. vasopressors	
3) Steroids	
i. Use of Blood Volume Expanders in Treatment of Shock	
4. Secondary Management	Relate important factors to be considered in secondary management.
a. Treat Underlying Cause	
b. Evaluation of Resuscitative Efforts	

V. Medical Emergencies

B. Drug Intoxication

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge in the recognition and emergency management of drug intoxication.

CONTENT	BEHAVIORAL OBJECTIVES
B. Drug Intoxication	
1. Special Considerations in Drug Intoxication	
a. "Do's" of Treatment	
1) Determine what drug, when taken, how much	List eight special considerations important in recognizing and treating drug intoxication.
2) Consider therapeutic atmosphere	
3) Expect multiple drug abuse	
4) Consider previous treatment by friends	
a) "Boxer's mouth"	
b) "Speed reversal"	
c) "The heavy salt trip"	
d) "Milk run"	
5) Expect alteration of mental clarity	
b. "Don'ts" of Treatment	
1) Look for pinpoint pupils	
2) Look for needle marks	
3) Leave the patient unattended	
4) Attempt to pass NG tube with hallucinogens	
2. Primary Management	Outline a plan for primary management of the drug intoxicated patient as it pertains to:
a. Establish an Airway	* Airway
b. Assess Cardiovascular System	* Circulatory status
c. Estimate Depth of Coma	* Evaluating depth of coma
d. Gastric Lavage	* Gastric lavage
e. Blood Pressure Support	* Blood pressure
f. Blood Specimens	* Diagnosis by blood specimen
g. X-ray	* Indications for x-ray
h. Specific Antidotes	* Specific antidotes for * respiratory depression * excitement * arrhythmia * bleeding
3. Secondary Management	Discuss the use of forced diuresis and dialysis in the secondary management of the drug intoxicated patient.
a. Forced Diuresis	
1) Diuretic medications	
2) Drugs with which most effective	
3) Drugs with which little or no value	
4) Complications and considerations	
b. Dialysis	
1) Peritoneal Dialysis	
a) Indications for	
b) As adjunct to hemodialysis	
2) Hemodialysis	
4. Specific Drugs	
a. Marijuana	List six types of "street" drugs frequently taken and describe the signs and symptoms manifested by their use.
1) Signs and symptoms	
2) Treatment	

V. Medical Emergencies

B. Drug Intoxication (Continued)

3) Considerations
b. LSD and "Mind Benders"
1) Signs and symptoms
2) Treatment
a) Physical contact
b) Thorazine contraindicated
c) Flashbacks
d) Infants and children
c. Amphetamines "speed"
1) Examples
2. Signs and symptoms
3) Treatment
4) Paranoid psychosis

Describe the appropriate treatment for each of the drugs listed.

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge necessary to assist in diagnosing poisoning, providing appropriate emergency care and describing possible complications and their treatment.

CONTENT	BEHAVIORAL OBJECTIVES
C. Poisonings	
1. Sources of poisoning a. Drugs b. Agricultural poisons c. Alcohol d. Snake Venom Poisons e. Glue f. Acids g. Corrosive Alkaline Substances h. Poisonous Plants i. Household Poisons (Kerosene, etc.)	List eight sources of potential poisonings.
2. Assessment a. Telephone 1) Poison Control Center 2) Who a) Name b) Age c) Weight d) Telephone number 3) What substance 4) When 5) Ask that container of poison accompany patient to hospital	List pertinent information which should be obtained over the telephone to assist in identifying the poison and providing appropriate and immediate treatment.
b. Inpatient 1) Who, what and when 2) History and physical 3) Lab values 4) Have drug/poison identified	List pertinent information which should be obtained in the E.R. setting to assist in immediate identification and treatment of the ingested substance.

V. Medical Emergencies

3. Primary Management
   a. Avoid Over-Treatment
   b. Symptomatic Treatment As Indicated
   c. Remove Poison
      1) Emesis
         a) Contraindications
         b) Indications
         c) Emetics
      2) Lavage
         a) Contraindications
         b) Indications
         c) Technique
         d) Specimens
         e) Lavage fluids
      3) Catharsis
      4) Forced diuresis
         a) Diuretic medications
         b) Complications and considerations
   d. Inactivate Poison
      1) Antidotes
      2) Universal antidote
      3) Demulcents
      4) Humidification, O_2, Steroids
      5) Copious amounts of flushing
4. Secondary Management and Symptomatic Measures
   a. Circulatory Failure
      1) Shock
      2) Cardiac failure
      3) Pulmonary edema
   b. Respiratory Abnormalities
      1) Obstruction
      2) Depression
      3) Hypostatic pneumonia
   c. CNS Involvement
      1) CNS excitement
      2) CNS depression
      3) Agranulocytosis
      4) Methemoglobinemia
   d. Increased Drug Excretion
      1) Diuretics
      2) Dialysis
         a) Peritoneal dialysis
         b) Hemodialysis

C. Poisonings (Continued)

Outline a plan of primary management for poison ingestion which will include:

* Importance of avoiding over treatment
* Symptomatic treatment
* Methods of poison removal
* Methods used to inactivate the poisoning.

Describe and discuss possible circulatory complications, their clinical manifestations and primary management.

Describe and discuss possible respiratory complications, their clinical manifestations and primary management.

Discuss and describe possible neurological complications, their clinical manifestations and primary management.

List and explain methods used to increase drug excretion and indications for their use.

Main Objective:
Upon completion of the course the student will be able to: Explain the etiology of anaphylaxis and demonstrate knowledge and skills in the emergency management of a patient experiencing an anaphylactic reaction.

CONTENT

BEHAVIORAL OBJECTIVES

D. Anaphylaxis

1. Etiology

Define possible causes of an anaphylactic reaction.

V. Medical Emergencies

2. Signs and Symptoms
   a. Respiratory
   b. Skin
   c. Cardiovascular
   d. Gastrointestinal

3. Primary Management
   a. Airway
   b. Epinephrine Administration
      1) Sublingual
      2) Intravenous
      3) Deltoid
      4) Intracardiac
      5) Site of allergen injection
   c. Treatment of Shock or Hypotension
      1) Positioning
      2) Vasopressor

4. Secondary Management
   a. Use of Antihistamines
   b. Management of Convulsions
   c. Management of Bronchospasms
   d. Use of Corticosteroids
5. Prophylaxis
   a. Interviewing the Patient
   b. Skin Testing
   c. Patient Education

D. Anaphylaxis (Continued)

Describe and discuss the possible clinical manifestations of anaphylaxis as demonstrated by the:
* respiratory system
* skin
* cardiovascular system
* gastrointestinal system

Outline a protocol for emergency management of anaphylaxis.

Discuss important aspects of:
* Airway management
* Use of Epinephrine
* Management of shock

List important considerations of secondary management including:
* Use of antihistamines
* Management of convulsions
* Management of bronchospasms
* Use of corticosteriods

List important points to be considered in prevention of anaphylaxis including:
* Interviewing the patient
* Skin testing
* Patient education

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of basic principles and techniques used to assist in diagnosing and meeting the emergency needs of the patient with a dissecting aneurysm.

CONTENT

E. Dissecting Aneurysm
1. Types of Aneurysms
   a. Proximal thoracic
   b. Distal thoracic
   c. Combined thoracic
   d. Abdominal

2. Causes
   a. Pathophysiological
   b. Traumatic causes

BEHAVIORAL OBJECTIVES

List the various types of aneurysms.

Discuss the possible causes of aneurysms.

V. Medical Emergencies

3. Clinical Manifestations
   a. Value of history
   b. Physical findings
   c. Diagnostic studies
      1) ECG
      2) Chest x-ray
      3) Abdominal x-ray
      4) Echographical studies
      5) Angiography
4. Complications

5. Primary Management
   a. Medical management
   b. Surgery

E. Dissecting Aneurysm (Continued)

List and describe various aspects of clinical manifestation including value of:
* History
* Physical findings
* Diagnostic studies

Describe and discuss possible complications from a dissecting aneurysm and how they might be manifested in a patient.

Outline a plan of primary management of a dissecting aneurysm and discuss the use of:
* Medical management
* Surgery

Main Objective:
Upon completion of the course the student will be able to: Explain the causes, pathophysiology, clinical findings and emergency management of a patient with a hypertensive crisis.

CONTENT

F. Hypertensive Crisis
1. Definition
2. Complications of Accelerated Hypertension
   a. Hypertensive Encephalopathy
      1) Symptoms
      2) Pathophysiology
      3) Treatment and nursing considerations
   b. Hypertensive Retinopathy
      1) Symptoms
      2) Pathophysiology
      3) Treatment and nursing considerations
   c. Hypertensive Nephropathy
      1) Symptoms
      2) Pathophysiology
      3) Treatment and nursing considerations
   d. Cardiac Decompensation
      1) Symptoms
      2) Pathophysiology
      3) Treatment and nursing considerations
   e. Dissecting Aortic Aneurysm
      1) Symptoms
      2) Pathophysiology
      3) Treatment and nursing considerations
3. Primary Management
   a. Diagnostic Assessment
   b. Drug Therapy
      1) Definite indications

BEHAVIORAL OBJECTIVES

Repeat the criterior for hypertensive crisis.

List five complications of accelerated hypertension.

Discuss the clinical findings, pathophysiology, treatment and nursing considerations for:
* hypertensive encepalopathy
* hypertensive retinopathy
* hypertensive nephropathy
* cardiac decompensation
* dissecting aortic aneurysm

V. Medical Emergencies

a) malignant hypertension
b) acute pulmonary edema when fresh MI is excluded
c) hypertensive encephalopathy
d) dissecting aneurysm in hypertensives
e) persistent diastolic pressure more than 105 mm Hg—not necessarily a crisis situation

2) Objectives of treatment
a) diastolic less than 100 mm Hg (90 under 20 years and 80, 10 years and under)
b) adequate urine flow
c) decrease total peripheral resistance, maintain urine output, prevent sodium retension.

3) Antihypertensives
a) rapidly acting agents
(1) Arfonad-Trimethaphan
(2) Hyperstat-Diazoxide
(3) Ansolysen-Pentolinium
(4) Nipride-Nitroprusside
b) delayed action agents
(1) Reserpine
(2) Aldomet-Alpha methyldopa
(3) Apresoline
(4) Inderal
c) diuretics
(1) Lasix-Furosemide
(2) Aldactone

c. Nursing Considerations
1) Vital signs
2) Cerebral status
3) Urine flow
4) Monitor
5) Seizures
6) Vasopressors

F. Hypertensive Crisis (Continued)

Develop a plan for emergency management of a patient with a hypertensive crisis including
* Diagnostic evaluation
* Drug management
* Nursing care

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of etiology, clinical findings and primary management of gastrointestinal hemorrhage.

CONTENT

G. G.I. Hemorrhage

1. Etiology
a. Peptic Ulceration of Duodenum or Stomach
b. Esophageal Varices
c. Gastritis
d. Hiatal Hernia
e. Marrory-Weis Syndrome
f. Ulcerogenic Drug

BEHAVIORAL OBJECTIVES

List six etiological factors which may cause gastrointestinal hemorrhage.

V. Medical Emergencies

2. Immediate Objectives of Treatment
   a. Restore effective blood volume
   b. Establish diagnosis on which specific treatment can be based
3. Clinical Findings
   a. Signs and Symptoms
   b. Laboratory Findings
      1) Liver function studies
      2) Blood studies
4. Primary Management
   a. Fluid Volume Restoration
   b. C.V.P. Monitoring
   c. Laboratory Work
      1) CBC, Hct.
      2) Type and crossmatch blood
   d. Urine Output
   e. Continued Vital Sign Monitoring
   f. Nasogastric Tube
   g. Mild sedation
5. Management of Bleeding Esophageal Varices
   a. Use of Pituitrin
   b. Senkstaken-Blakemore Tube
   c. Surgical Decompression of Portal Hypertension
6. Indications for Emergency Surgery

G. G.I. Hemorrhage (Continued)

Identify the primary objectives of immediate treatment in the patient with gastro-intestinal hemorrhage.

Describe the clinical and laboratory findings which suggest gastro-intestinal hemorrhage.

Develop a plan of emergency care for the patient with gastro-intestinal hemorrhage.

List and explain the primary factors to be considered in the management of a patient with bleeding esophageal varices.

Discuss the criteria used to evaluate the indications for surgery in gastro-intestinal hemorrhage.

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of ketoacidosis and coma as it relates to causes, pathophysiology, clinical manifestations and initial management in the emergency room.

CONTENT

H. Ketoacidosis and Coma

1. Etiology
   a. Common cause of Ketoacidosis and coma is failure to take insulin
   b. Increased insulin needs secondary to infection or stress
   c. Non ketotic hyperosmolar coma is usually due to substantially inadequate insulin in the older diabetic
2. Physiological changes to Insulin Deficiency
   a. Mobilization of fatty acids
   b. Accumulation of fatty acids
   c. Hyperglycemia
   d. Impaired cellular uptake of glucose
   e. Deficits in body water and electrolytes
3. Assessment
   a. Symptoms
      1) Thirst

BEHAVIORAL OBJECTIVES

List three etiological factors which may lead to ketoacidosis and coma.

Discuss three physiological changes which can result in the development of ketoacidosis and coma resulting from insulin deficiency.

List five signs and symptoms present in ketoacidosis and be able to identify them in a clinical situation.

59

2) Anorexia
3) Nausea and vomiting
4) Abdominal pain
5) Dim vision
6) Constipation
7) Dyspnea

b. Signs
1) Florrid face
2) Kussmaul's respiration — respiratory paralysis
3) Dehydration
4) Rapid pulse
5) Soft eyeballs
6) Normal or absent reflexes
7) Acetone breath
8) Clouding of consciousness — coma — death

4. Primary Management
a. Diagnosis
1) Draw blood sugar
2) Rule out suspected hypoglycemia in comatose patient with IV administration of 1 mgm. Glucagon of 50 cc or 50% Dextrose
3) Urine Evaluation
a) acetone
b) diabetic acid
c) glucose
d) albumin
e) bacterial culture
f) antibiotic sensitivity
4) Blood
a) clotted for plasma ketone content
b) unclotted
(1) glucose
(2) CO_2
(3) sodium
(4) chloride
(5) potassium
(6) BUN
5) Additional blood tests
a) CBC
b) hematocrit
6) In the presence of abdominal pain
a) serum amylase
b) enzyme studies
7) History and physical
a) state of consciousness
b) deep tendon reflexes
c) type of respirations
d) pulse rate
e) blood pressure
f) rectal temperature
g) tonicity of eyeballs

Outline a plan of management for emergency care during the first hour after the patient is seen in the E.R. including such elements as

* Establishing priorities of care
* Differential diagnosis
  * urinalysis
  * laboratory blood values
  * history and physical exam
* Insulin administration
* Fluids and electrolyte replacement
* Supportive care

h) hydration of skin and tongue
i) presence of gastric dilatation
j) possible sources of infection

b. Initial Management
1) Insulin
a) type—regular insulin exclusively
b) dosage—ranges 10-200 units
c) method
(1) IM
(2) IV
2) Fluids and electrolytes
a) alkalinizing solution — usually 1 liter in 90 minutes
b) diabetic with CHF — ½ strength N.S. at slower rate
c) children—Lactated Ringers at 20 ml/Kg.
3) Supportive care
a) in presence of shock
(1) blood
(2) plasma
(3) plasma expanders
(4) Levophed
b) vomiting and gastric distention
(1) gastric lavage with sodium bicarbonate solution
(2) saline enema
(3) hourly intake and output
(4) determination of glucose and ketone bodies through urine specimens

5. Secondary Management—two-six hours
a. Insulin
1) 1 unit Kg. body weight
2) Regular insulin every six hours
3) Additional insulin depending upon clinical status
b. Fluids and electrolytes
1) second liter usually given over 2½-3 hours
2) start D_5W or D_5Saline when blood sugar and glycosuria show decrease
3) assess total fluid intake and output
4) considerations
a) hypochloremia
b) hypokalemia
5) Start potassium by fourth hour or third bottle of fluid if urinary output adequate
c. Additional measures
1) oral fluids
a) restrictions
(1) adults—limit to 100-200 cc/hr.
(2) children—limit to 50 cc/hr.
b) nausea

Develop a plan of secondary management during the first 12-24 hours after beginning initial care in the emergency room.

61

(1) restrict fluids 2-6 hrs.
(2) antiemetics

c) Repeat history and physical
(1) patient may be more alert
(2) significant physical findings previously masked by dehydration may become evident

d) Lab work
(1) blood sugar and CO_2 determinations every 4-6 hrs. for first 24 hours
(2) Serum potassium at 8 and 12 hours

e) Diet

Main Objective:
Upon completion of the course the student will be able to: Assess the unconscious patient to determine the level of coma, possible cause and to initiate appropriate treatment.

CONTENT

I. Unconscious Patient

1. Definition
   a. May be synonymous with coma or semi-coma
   b. Cannot be aroused sufficiently for appropriate verbal response or follow commands
   c. May move purposefully in response to pain, but will do little else
2. Etiology—(Depression of brain function)
   a. Shock (Cardiogenic)
      1) Cardiac Arrest
      2) Myocardial Infarction
      3) Pericardial Tamponade
   b. Shock—(Hypovolemic)
      1) Dehydration
      2) Hemorrhage
   c. Metabolic
      1) Renal (uremic)
      2) Hepatic (ammonia)
      3) Diabetic (glucose)
   d. Metabolic (chemical)
      1) Sodium
         a) hypernatremia
         b) hyponatremia
      2) Potassium
         a) hyperkalemia
         b) hypokalemia
   e. Metabolic (toxic)
      1) Drug overdose
      2) Sedatives
      3) Narcotics

BEHAVIORAL OBJECTIVES

Define the term "unconscious".

Explain the various levels of coma.

Describe the different levels of coma as they relate to the patient's
* verbal response
* muscular response
* response to stimuli
* pupillary status
* gag and cough activity

List the possible causes for depression of brain function.

Discuss the effect each of the following conditions may have on a patient's level of consciousness
* shock
* metabolic disorders
* seizures
* infections
* respiratory insufficiency
* intracranial hematoma
* stroke

V. Medical Emergencies

4) Poisons
f. Seizures
g. Infection
h. Respiratory Insufficiency
1) Airway obstruction
2) Pneumothorax
3) Lung disease (pneumonia)
i. Intracranial hematoma
j. Stroke (brain stem)

3. Assessment
a. History—most crucial aspect of evaluation
1) Patient Identification
a) Contact relatives and family physician
b) Medical alert jewelry
2) Determine how unconsciousness occurred
3) Determine usual state of patient's health
4) When was the patient last seen awake?
5) What drugs are usually taken?
6) Previcus suicide attempts or drug abuse?
7) What disease does the patient have?
a) History of seizures?
b) Heart disease?
c) CVA?
d) Hypertension?
e) Recent headaches?
f) Diabetes?
8) No history available
a) Assume unconsciousness acute
b) Suspect intracranial hemorrhage
b. Physical examination
1) Vital signs
2) General observation
a) Color
b) Signs of trauma
(1) Contusions
(2) Abrasions
(3) Lacerations
c) Sclera
(1) Absence of visible blood vessels
(2) Jaundice
d) Breath
(1) Alcohol
(2) Acetone
e) Needle marks
(1) Thighs or abdomen
(2) Antecubital
f) Pressure marks on skin
g) Incontinence of bowel or bladder

I. Unconscious Patient (Continued)

Identify and demonstrate techniques that may be used in obtaining an accurate history to aid in determining the cause of unconsciousness.

Identify and discuss specific physical observations made to determine the cause of unconsciousness.

Given a comatose patient demonstrate skills used to evaluate the patients status and assist in a diagnosis.

63

h) Hydration
(1) Skin turgor
(2) Moistness of oral mucous membranes
(3) Examination of:
(a) Heart
(b) Lungs
(c) Abdomen
(d) Pelvis and rectum

c. Neurological Examination

Describe the techniques used in a neurological examination of an unconscious patient.

1) Level of consciousness
a) Semi-coma, coma—describe
b) Response to painful stimuli
c) Posturing
(1) Decerebrate
(2) Decorticate

Correlate the results of the neurological examination with the possible cause of unconsciousness.

2) Eyes
a) Pupil size and reaction
b) Deviation
c) Extraocular movements
d) Fundoscopy
3) Respirations
a) Rate
b) Rhythm
4) Movement
a) Response to painful stimuli
b) Facial symmetry
5) Head examination
a) Trauma
b) Nuchal rigidity

d. Diagnosis

List and discuss laboratory and other diagnostic tests which may aid in determining the diagnosis and treatment of the unconscious patient.

1) Evaluate progression of vital signs and level of responsiveness
2) Diagnostic tests
a) Coma profile
(1) Electrolytes
(2) Sugar
(3) BUN
(4) Alcohol
(5) Barbiturate screen
(6) Salicylate screen
b) Urinalysis
c) Arterial blood gases
d) Stool for occult blood
e) Electrocardiogram
f) X-rays
(1) Chest
(2) Skull
g) Echoencephalogram
h) Lumbar puncture if suspect meningitis

4. Management
a. Primary Management

V. Medical Emergencies

1) Establish and maintain patent airway
   a) Semi prone position
   b) Oral airway
   c) Endotracheal intubation
   d) Oxygen therapy
   e) Suctioning
2) Evaluate progression of vital signs
3) Initiate IV fluid lifeline
4) Insert urinary catheter
5) Nasogastric tube
6) Provide eye care

b. Secondary Management
   (1) Continued Assessment
   (2) Differential diagnosis
   (3) Initiate appropriate treatment, based on diagnosis

I. Unconscious Patient (Continued)

Outline and initiate a plan of primary management for the unconscious patient in the emergency situation.

Through continued observation and assessment, evaluate the effectiveness of the treatment.

Discuss the factors to be considered in caring for the patient following the acute emergency period.

VI. Special Categories

A. Burn Therapy

Main Objective:
Upon completion of the course the student will be able to: Discuss and demonstrate the more current knowledge and practices of burn therapy.

CONTENT	Behavioral Objectives
A. Burn Therapy	
1. Classifications of Burns a. According to Etiology 1) Thermal 2) Chemical 3) Electrical 4) Radiation b. According to Thickness 1) First degree—superficial thickness 2) Second degree—partial thickness 3) Third degree—full thickness c. According to Severity 1) Critical (severe) burns a) Complicated by respiratory tract injury and fractures b) Third degree burns covering more than 10 percent of the body surface c) Second degree burns covering more than 30 percent of the body surface 2) Moderate burns a) Third degree burns of 2-10 percent of body surface and not involving the face, the hands and the feet. b) Second degree burns involving 15 to 30 percent of the body surface c) First degree burns involving 50-75 percent of the body surface 3) Minor burns a) Third degree burns of less than 2 percent of the body surface b) Second degree burns of less than 15 percent of the body surface c) First degree burns of less than 20 percent, excluding face, hands, and feet	Give the classifications of burns according to etiology, thickness, and severity and define each.
2. Assessment a. Airway Assessment 1) Ventilation adequacy 2) Nares cilia 3) Need for escharotomy b. Assess Extent of Burn 1) **Remove clothing!!** 2) Classify burns according to thickness 3) "Rule of Nines" to estimate percentage of burns	Outline the elements of assessment that would be essential in estimating the damage resulting from burns.

VI. Special Categories

c. Adequate History
   1) Etiology
   2) Surrounding curcumstances of burn
   3) Allergies
   4) Tetanus immunization status
   5) State of previous health

d. Specific Assessments Pertaining to Electrical Burns
   1) Entry and exit features
   2) Check carefully for smoldering clothing

3. Primary Management

a. Evaluate airway patency
   1) Remove obstructions
   2) Use of adjuncts
      a) Cuffed endotracheal tube
      b) Esophageal airway
      c) Mechanical ventilator
   3) Possible need for escharotomy of neck or chest

b. Establishment of a Lifeline
   1) For moderate burns (no more than 15% full thickness in healthy adults)
      a) Perform veni puncture with a large bore needle
      b) Start Lactated Ringer's Solution
   2) For severe burns (over 20% full thickness)
      a) Perform a cutdown with a 16-18 guage catheter
      b) Choice of a vein—
         (1) cephalic vein
         (2) jugular
         (3) subclavian
         (4) saphencus vein
         (Choose an upper extremity and an unburned area, if possible)

c. Relief of Discomfort
   1) Avoid narcotics
   2) Avoid IM injections
   3) Use Valium intravenously if necessary to sedate
   4) Give frequent emotional support

d. Insert a foley catheter and send specimen to laboratory
   1) Lab evaluation
      a) pH
      b) Specific gravity
      c) Sugar
      d) Acetone
   2) Hourly urinary output—should range from 0.5-1.5 cc/Kg/hr

e. Cleansing of Wound
   1) Use of appropriate cleaning agents

A. Burn Therapy (Continued)

Establish priorities of care for the burn patient in an emergency situation.

Construct a plan for the initial management of the burn patient.

67

2) Mechanical debridement
3) Use of appropriate neutralizing agents when indicated

f. Estimation of Percentage and Depth of of Burn
g. Immunization Against Tetanus
h. Evaluate for Escharotomy
i. Weight of Patient or Estimate Weight
j. Care of the Burn Wound Itself
k. Write orders, considering the following:
   1) N.G. tube if indicated for gastric dilation; otherwise 150 cc milk hourly for adults and 120 cc hourly for children
   2) Accurate intake and output
   3) Record blood pressure, pulse, and urine output and C.V.P.
   4) Check urine pH and specific gravity every 4 hours and record
   5) Lab work:
      a) Hgb. and Hct.
      b) CO_2 combining power
      c) Serum potassium
      d) sodium
      e) chloride
      f) A/G ratio approximately every other day
      g) check serum pH, PCO_2 as indicated
   6) Mouth and eye care for facial burns
   7) Sodium penicillin 600,000 u. I.V. b.i.d. for five days (adults) and 300,000 units for pediatrics
   8) Humidified O_2
   9) Culture of burn wound
l. Maintain Fluid Resuscitation in Effective Proportions
   1) Use Lactated Ringers
   2) Number all bottles
   3) Calculate fluids according to: 4cc/24 hour x body weight/Kg x % of burn
m. Specific Management of Electrical Burns
   1) When to anticipate ventricular fibrillation
   2) Remove **all** smoldering clothing
   3) Combat formation of myoglobinuria
      a) Use of sodium bicarbonate
      b) Use of mannitol

VI. Special Categories

B. Pediatric Emergencies

Main Objective:
Upon completion of the course the student will be able to: Demonstrate knowledge of pediatric emergencies, causative factors, clinical manifestations and primary management in providing emergency care.

CONTENT	Behavioral Objectives
B. Pediatric Emergencies	
1. General Considerations	
a. Infant Morality	
1) Cause of death	
2) Incidence	
b. Child Mortality	Discuss the most common causes of infant and child mortality and compare the incidence of these causes as related to adult mortality
1) Cause of death	
2) Incidence	
2. Review of Pediatric Physiology in Comparison to the Adult	
a. Growth Patterns	Outline normal growth pattern of infancy through childhood.
b. Vital Signs in Infancy and Childhood	Discuss how normal values of vital signs in infants and children compare to adult findings.
c. Reflex Differences in Adults vs. Children	Discuss how normal reflexes vary from those present in adults.
d. Normal Laboratory Values in Infants and Children	Identify normal laboratory values in infants and children.
3. Drug Therapy and Fluid Replacement	
a. Adjusting Medication Dosages	List principles and demonstrate methods used to determine appropriate drug doses.
b. Fluid Replacement	List principles and demonstrate methods used for calculating appropriate requirements for fluid intake and replacement.
4. Pediatric Emergencies	
a. The Newborn	List and discuss possible causes of newborn emergencies.
1) Respiratory distress syndrome	
(a) Causes	
(b) Clinical manifestations	
(c) Primary management	
2) Aspiration	
(a) Causes	
(b) Clinical manifestations	List and demonstrate assessment skills utilized to identify signs and symptoms of respiratory distress, aspiration and sepsis in the newborn.
(c) Primary management	
3) Sepsis	
(a) Causes	
(b) Clinical manifestations	Interpret observation made and establish priorities in initial management.
(c) Primary management	Formulate a plan of management, initiate appropriate action and evaluate its effectiveness.
b. The Infant and Child	
1) Respiratory Emergencies	Discuss the possible causes of respiratory emergencies in infants and children.

69

VI. Special Categories

(a) Causes
  (1) asthma
  (2) bronchiolitis
  (3) epiglottitis and laryngotracheitis
  (4) pneumonia
  (5) foreign body
(b) Clinical manifestations
(c) Primary management

2) Diarrhea and dehydration
  (a) Causes
  (b) Clinical manifestations
  (c) Primary management

3) Convulsions
  (a) Causes
  (b) Differential diagnosis
    (1) febrile convulsions
    (2) epilepsy
    (3) neurological disease or trauma
  (c) Primary management

4) Bacterial meningitis
  (a) Contributing causes
  (b) Clinical manifestations
  (c) Primary management

5) Cardiopulmonary resuscitation of infants and children
  (a) Causes
  (b) Essential equipment for pediatric resuscitation
  (c) Basic life support
  (d) Advanced life support
    (1) airway management
    (2) monitoring
    (3) fluid life lines
    (4) definitive therapy
      i) defibrillation

B. Pediatric Emergencies (Continued)

List signs and symptoms demonstrated in each of these emergencies and utilize assessment skills to identify them.

Based on her assessment:
* establish priorities of care
* outline and initiate a plan of initial management
* evaluate the effectiveness of the action taken

List five etiological factors of diarrhea and dehydration and their clinical manifestations.

List and demonstrate assessment skills utilized to identify severe diarrhea and dehydration in an infant or child.

Outline and implement a plan of immediate management of severe diarrhea and dehydration.

List four causes of convulsions in children.

Discuss how the cause can be identified by use of history, physical exam, laboratory tests and x-ray.

Given a patient with convulsions, outline and implement a plan of immediate management.

Explain what factors can contribute to development of bacterial meningitis.

List the possible clinical manifestations of bacterial meningitis, including signs and symptoms, lab values and other diagnostic criteria.

Outline a plan for initial management of possible bacterial meningitis in the E.R.

Discuss etiological factors contributing to cardiac arrest.

List essential equipment necessary for infant resuscitation.

Discuss the technique of basic life support in infants and children as compared with adults and demonstrate this proficiently on a manikin.

Discuss how advanced life support techniques are altered in resuscitation of infants and children as related to:

70

VI. Special Categories

ii) drugs

6) Poisoning
- (a) Contributing factors
- (b) Clinical manifestations
  - (1) gastrointestinal symptoms
  - (2) central nervous symptoms
  - (3) skin manifestations
- (c) Diagnostic evaluation
  - (1) blood
  - (2) urine
  - (3) gastric washings
  - (4) vomitus
- (d) Primary management
  - (1) identify poison
  - (2) removal of poison
    - i) induce vomiting
    - ii) gastric lavage
  - (3) administration of antidotes
  - (4) supportive care
    - i) general considerations
      - i) continued assessment
      - ii) fluid management
      - iii) hypo or hyperthermia
      - iv) emotional support
    - ii) complications
      - i) CNS involvement
      - ii) respiratory involvement
      - iii) cardiovascular involvement
      - iv) kidney involvement

7) The Battered Child
- (a) Contributing factors
- (b) Clinical manifestations
  - (1) factors for suspicion
  - (2) types of possible injuries
- (c) Primary management
  - (1) initial assessment
  - (2) supportive care
  - (3) records and reporting

8) Sudden Infant Death Syndrome
- (a) Etiological factors
- (b) Management of Parental Feeling
  - (1) grief
  - (2) guilt
- (c) Importance of Post Mortem Exam

B. Pediatric Emergencies (Continued)

- * Airway management
- * Monitoring
- * Fluid life lines
- * Defibrillation
- * Drug therapy

List contributing factors to incidents of poisoning in children.

Describe what signs and symptoms might be manifested by "poisoning" in children.

Explain the use of blood tests, urinalysis, gastric washings and vomitus analysis in determining the source of poison.

Outline a plan for primary management of the poisoned child in the emergency room including:
- * Poison identification
- * Removal of poison
- * Use of antidotes
- * Supportive care

Discuss factors which contribute to the incidence of child abuse.

Describe the clinical findings which should arouse suspicion of child abuse.

Outline a plan of primary management in child abuse including:
- * Initial assessment
- * Supportive care of child and parents
- * Requirements for record keeping and reporting

Discuss the possible etiological factors which contribute to Sudden Infant Death Syndrome.

Discuss the problems encountered by parents as related to grief and guilt.

Explain the significance of a post mortem exam.

71

C. Obstetrical Emergencies

Main Objective:
Upon completion of the course the student will be able to: Discuss and demonstrate a knowledge of potential obstetrical emergencies and the emergency management.

CONTENT	Behavioral Objectives
C. Obstetrical Emergencies	
1. Complications of pregnancy	
a. Abortion	
1) Classification	Explain the different classifications of abortions, what their presenting signs and symptoms might be, and what primary actions of management should be initiated.
a) Induced	
b) Spontaneous	
c) Threatened	
d) Inevitable	
e) Complete	
f) Incomplete	
2) Signs and symptoms	
3) Complications	
4) Treatment	
a) Emergency measures	
b) General measures	
b. Hemorrhage in late pregnancy	
1) Abruptio placenta	Give two serious conditions that might cause hemorrhage in late pregnancy, their signs and symptoms, complications, and their emergency management.
a) Signs and symptoms	
b) Complications	
c) Emergency measures	
2) Placenta Previa	
a) Signs and symptoms	
b) Complications	
c) Emergency management	
c. Ectopic Pregnancy	Identify the signs and symptoms, complications, and emergency management anticipated with the following type of patient: * ectopic pregnancy * hyperemesis gravidarum * toxemic and hypertensive
1) Signs and symptoms	
2) Complications	
3) Emergency management	
a) patient with hemoperitoneum and shock	
b) physiologically stable with likely ectopic	
d. Hyperemesis gravidarum	
1) Signs and symptoms	
2) Complications	
3) Management	
a) indications for therapeutic abortion	
b) electrolyte balance	
e. Toxemia and Hypertension	
1) Signs and sypmtoms	
a) preeclampsia	
b) eclampsia	
2) Complications	
3) Management	
a) preeclampsia	
b) eclampsia	

VI. Special Categories

4) Indications for termination of pregnancy

2. Complications of Labor and Delivery
   a. Dysfunctional labor
      1) Precipitate delivery
         a) Signs and symptoms
         b) Intervention
         c) Care of the infant
      2) Compression and Collapse of Cord
         a) Signs and symptoms
         b) Complications
         c) Management
      3) Accidents and injuries
         a) Uterine rupture
            (1) Etiology
            (2) Signs and symptoms
            (3) Management
         b) Uterine inversion
            (1) Etiology
            (2) Signs and symptoms
            (3) Management
         c) Lacerations
            (1) Location
            (2) Management
         d) D and C
            (1) Etiology
            (2) Signs and symptoms
            (3) Complications
            (4) Management
3. Post Partum Complications
   a. Hemorrhage
      1) Lacerations
         a) Location
         b) Management
      2) Atomy
         a) Pathophysiology
         b) Signs and symptoms
         c) Complications
         d) Management
      3) Retained placenta
         a) Pathophysiology
         b) Signs and symptoms
         c) Complications
         d) Management
   b. Placenta Accreta
      1) Signs and symptoms
      2) Complications
      3) Management
   c. Uterine Inversion
      1) Signs and symptoms
      2) Complications
      3) Management

C. Obstetrical Emergencies (Continued)

List at least three types of complications that might be encountered during labor and delivery, essential observations that should be made with each, and what emergency management should be initiated.

Name three post partum complications, the assessment skills necessary to evaluate their signs and symptoms, the potential complications, and the primary management that should be instituted.

Main Objective:
Upon completion of the course the student should be able to: Create an awareness of the situations commonly encountered during emergency situations that are potential psychiatric emergencies and how to deal with them effectively.

CONTENT	Behavioral Objectives
D. Psychiatric Emergencies	
1. Understanding a Psychiatric Emergency	
a. Definition	Give a definition of psychiatric emergency
b. Basic Human Needs	
1) Love	Name the four basic human needs and an example as to how they can be jeopardized in an emergency situation.
2) Security and Control	
3) Significance	
4) Fun	
c. Reactions to an Emergency	
1) Fear	
2) Impatience	
3) Sadness	
4) Confusion	
5) Hysteria	
6) Hostility	
2. Assessment	
a. Patient's Behavior	Outline a method of assessing a patient's psychological status.
1) Verbal communication	
2) Non-verbal communication	
b. Patient's Complaint	
1) In patient's own words	
2) Current life situation	
c. Physical Exam	
1) Organic causes	
2) Explicit documentation	
d. History	
e. Observation of the Patient	
3. Primary Management	
a. Therapeutic Approach	List the five elements necessary for a therapeutic approach and give an example as to how each might be achieved.
1) Learning to Empathize	
2) Creating an Environment of Confidence	
3) Conveying warmth into a relationship	
4) The Role of Hope	
5) Learning Intrusiveness	
b. Tactics in Crisis Intervention	
1) Presentation of the therapist as an empathetic, calm, warm, hopeful, intrusive leader	Discuss eight tactics used in crisis intervention and explain their purposes.
2) Focusing on affect release	
3) Fostering of maturity	
4) Searching for current focal life situations	
5) Delving into unsatisfied needs	

VI. Special Categories

6) Consensual summary and feedback
7) Structured planning, with shifting of responsibility and confidence to the patient while encouraging him/her to select from appropriate alternatives
8) Reviewing future possibilities of stress, methods of resolution, and sources of further help

c. Management of Specific Emergency Situations
1) Suicide Attempts
2) Anxiety and Panic
3) Aggressive or bizarre behavior
4) Delusional or paranoid patients
5) Organic brain syndrome
6) Alcohol
7) Drug withdrawal
8) Other problems
a) the self-mutilating patient
b) the uncooperative patient
c) the patient who feels hopeless
d) the patient about to receive bad news
e) dealing with death

4. Secondary Management
a. Evaluation of need for further observation
b. Referral to proper authorities, physician, or social service

D. Psychiatric Emergencies (Continued)

escribe means of promoting effective communicaon with the following type of patient.

* Suicidal
* Anxious or panic stricken
* Aggressive or bizarre behavior
* Delusional or paranoid patients
* Organic brain syndrome
* Drug withdrawal
* Alcoholic

iiscuss a means of evaluating whether further sychiatric observation is necessary.

75

REFERENCE MATERIALS

Books

American Academy of Orthopedic Surgeons Committee on Injuries. **Emergency Care and Transportation of the Sick and Injured.** Menasna, Wisconsin: George Banta Co., Inc., 1971.

American College of Surgeons Committee on Trauma. **Early Care of the Injured Patient.** Philadelphia: W. B. Saunders Company, 1972.

Bendixon, Egbert, **et al. Respiratory Care.** St. Louis: C. V. Mosby Company, 1965.

Brunner, Lillian Sholtis, and Doris Smith Suddarth. **Lippincott Manual of Nursing Practice.** Philadelphia: J. B. Lippincott Company, 1974.

Brunner, Lillian Sholtis, **et al. Medical Surgical Nursing.** Philadelphia: J. B. Lippincott Company, 1974.

Cole, W. H. and Preston, C. B. **Emergency Care Surgical and Medical.** N.Y. Appelton, Century, Croft.

Conn, Howard F. (ed). **Current Therapy.** Philadelphia: W. B. Saunders Company, 1974.

Dienhart, C. M. **Basic Anatomy and Physiology.** Philadelphia: W. B. Saunders.

Eckert, C., **Emergency Room Care.** N.Y.: Little, Brown & Co., 1971.

Grant, Harvey and Robert Murray. **Emergency Care.** Washington, D.C.: Robert J. Brady Company, 1971.

Guyton, Arthur B. **Basic Human Physiology.** Philadelphia: W. B. Saunders Company, 1971.

Hamilton, and Larein. **Decision Making in the Coronary Care Unit.** St. Louis: C. V. Mosby.

Heironimus, Terring W. **Mechanical Artificial Ventilation.** Springfield, Illinois: Charles C. Thomas Publishing Company, 1971.

Hudak, Carolyn M., **et al. Critical Care Nursing.** Philadelphia: J. B. Lippincort Company, 1973.

Huszar, Robert. **Emergency Cardiac Care.** Bowie, Maryland: Robert J. Brady Company, 1974.

Korones, S. B. **High Risk Newborn Infants, the Basis for Intensive Care Nursing.** St. Louis: C. V. Mosby.

Krupp, Marcus A., and Milton J. Chatton. **Current Diagnosis and Treatment.** Los Altos, Caliornia: Lange Medical Publications, 1974.

Lilly, Eli. **Diabetes Mellitus.** Indianapolis: Eli Lilly Company, 1973.

Martin, J. I. **Trauma to the Thorax and Abdomen.** Springfield, Illinois: Charles C. Thomas Publishing Co.

Meltzer, Lawrence E., **et al. Intensive Coronary Care Manual for Nurses.** Philadelphia: Charles Press Publishers, Inc., 1972.

Neville, W. E. **Care of the Surgical Cardiopulmonary Patient.** Chicago: Year Book Medical Services, Inc., 1971.

Pascoe, Delmer J. and Grossman, Moses. **Guide to Pediatric Emergencies.** Philadelphia: J. B. Lippincott Company, 1973.

Sharp, J. C. and Marx, F. **Management of Medical Emergencies.** N.Y.: McGraw-Hill, 1969.

Sharp, LaVaughn and Rabin, Beatrice. **Nursing in the Coronary Care Unit.** Philadelphia: J. B. Lippincott Company, 1970.

Slonim, Balfour N., **et al. Pediatric Respiratory Therapy.** Monsey, N.Y.: Glenn Educational Medical Services, Inc., 1974.

Smith, C. A., **The Critically Ill Child.** Philadelphia: W. B. Saunders, 1972.

Stephenson, Hugh E. **Cardiac Arrest and Resuscitation.** St. Louis: C. V. Mosby Company, 1974.

Stephenson, Hugh E. **Immediate Care of the Acutely Ill and Injured.** St. Louis: C. V. Mosby Company, 1974.

REFERENCES

GENERAL INFORMATION

Topic: Organization and Staffing the Emergency Room

Periodicals

Costella, Dorothy, "Organization and Staffing the Emergency Room" **Nursing Clinics of North America.** 2:225-235, June, 1967.

DeMontfort, Sister, "Organization and Staffing" **Supervisor Nurse,** February, 1971.

Jackson, Edgar B., "In the Screening Clinic: Guidelines to the Appraisal of Some Common Problems" **A. J. N.,** 72:1398-1400, August, 1972.

Shepard, William, "Administering the Hospital Emergency Room" **Nursing Clinics of North America.** 2:217-223, June, 1967.

Publications

Emergency Services Section of Accreditation Manual for Hospitals. Joint Commission on Accreditation for Hospitals.

Guidelines for the Design and Functions of a Hospital Emergency Department. A report prepared by the Committee on Trauma of the American College of Surgeons. New York: John A. Hartford Foundation, Inc., 1970.

Topic: Communications

Periodicals

Kerr, Avice, "Emergency Care Records" **Nursing '73.** August '73: 40-43.

"Patient Assessment: Taking a Patient History" **A. J. N.,** 74:293-324, February, 1974.

Topic: Changing Role of Emergency Room

Periodicals

Lambersten, N., "Inservice Education for Emergency Nursing Service" **Nursing Clinics of North America.** 2:237-243, June, 1967.

Lynaugh, Joan E. and Barbara Bates, "Physical Diagnosis: A Skill for all Nurses?" **A. J. N.,** 74:58-59, January 1974.

Poliaficio, Frank, "The E.M.T. and the Nurse" **Emergency Medical Services,** January 1974:38-41.

Romano, Theresa, "Trauma Nurse Specialist" **A. J. N.,** June 1973:1008-1011.

Rosenthal, Etta M., "Let's Have More E.R. Courses!" **R. N. Magazine,** November 1970:44-49.

"The New E.R. Nursing - Is It For You?" **R. N. Magazine,** November 1970:37-43.

GENERAL INFORMATION CONTINUED

Topic: Emergency Medical Services

Periodicals

O'Boyle, Catherine, "A New Era in Emergency Services" **A. J. N.,** 72:1392-1397, August, 1972.

"Reversing the Process of Dying" **R. N. Magazine,** September 1974.

Publications

Emergency Health Services Selected References. U. S. Dept. of HEW Public Health Services.

Farrington, "Death in a Ditch" **American College of Surgeons Bulletin,** May-June 1967.

Recommended Standards for Development of Emergency Medical Services Systems. U. S. Department of HEW Public Health Services and Mental Health Administration. Division of Emergency Health Services, Rockville, Maryland, 20852.

Standards for Cardiopulmonary Resuscitation and Emergency Cardiac Care. Supplement to JAMA, Vol. 227, No. 7 February 18, 1974. 535 N. Dearborn Street, Chicago, Illinois, 60610.

The Critically Injured Patient. Illinois Department of Public Health, Division of Emergency Medical Services and Highway Safety.

REFERENCES

RESPIRATORY

Books

Bendixon, Egbert, **et al. Respiratory Care.** St. Louis: C. V. Mosby Company, 1965.

Heironimus, Terring W. **Mechanical Artificial Ventilation.** Springfield, Illinois: Charles C. Thomas Publishing Company, 1971.

Hudak, Carolyn M., **et al. Critical Care Nursing.** Philadelphia: J. B. Lippincott Company, 1973.

Stephenson, Hugh E. **Immediate Care of the Acutely Ill and Injured.** St. Louis: C. V. Mosby Company, 1974.

Periodicals

Broughton, Joseph O. "Chest Physical Diagnosis for Nurses & Respiratory Therapists" **Heart & Lung,** Vol. 1, No. 2:200-206.

"Bubble, Bubble, Worth the Trouble" **Emergency Medicine,** May 1971:40-42.

"Care and Feeding of Chest Tubes" **A. J. N.,** Vol. 72:305-308.

"Chest Tubes - Basic Technique" **Nursing 1974,** December:48.

"Down the Hatch in a Hurry" **Emergency Medicine,** May 1971.

"Emergency Care for Near-Drowning Victims" **R. N. Magazine,** July, 1970:49.

Jacquette, Germaine, "To Reduce Hazards of Tracheal Suctioning." **A. J. N.,** December 1971:2362-2364.

RESPIRATORY CONTINUED

Littman, David, "Stethoscope and Ausculation" **A. J. N.,** Vol. 72, No. 7:1238-1241.

"Near Drowning: Strategy for Survival" **Emergency Medicine,** 6:367-376, February, 1974.

Sitzman, Judith, "Nursing Management of the Acutely Ill Respiratory Patient" **Heart and Lung,** Vol. 1, No. 2:207-215.

"Standards for Cardiopulmonary Resuscitation (C.P.R.) and Emergency Cardiac Care" **J.A.M.A.,** February 1974:852-854.

"Status Asthmaticus" **Emergency Medicine,** February 1974.

Sweetwood, Hannelare, "Bedside Assessment of Respirations" **Nursing 1973,** September 1973:50-51.

"Tips on Treating Respiratory Distress" **Emergency Medicine,** May, 1971.

"Tracheostomy without Tears" **Emergency Medicine,** May 1974.

"Trauma Rounds" **Emergency Medicine,** May 1974:293.

"Trauma to the Tree" **Emergency Medicine,** October 1974.

Traver, Gayle A., "Assessment of Thorax and Lungs" **A. J. N.,** 73:466-471, March, 1973.

Tysinger, D. S., "Oxygen: The Most Misused Drug in the World" **The Journal of the Medical Association of the State of Alabama,** May 1973.

"Understanding Blood Gases" **Nursing 1973:** 15-21.

"When a Good Wind Blows In" **Emergency Medicine,** December 1974.

CARDIAC

Books

Hamilton, and Larein. **Decision Making in the Coronary Care Unit.** St. Louis: C. V. Mosby.

Hudak, Carolyn M., **et al. Critical Care Nursing,** Philadelphia: J. B. Lippincott Company, 1973.

Huszar, Robert. **Emergency Cardiac Care.** Bowie, Maryland: Robert J. Brady Company, 1974.

Meltzer, Lawrence E., **et al. Intensive Coronary Care Manual for Nurses.** Philadelphia: Charles Press Publisher, Inc., 1972.

Neville, W. E., **Care of the Surgical Cardiopulmonary Patient.** Chicago: Year Book Medical Services, Inc., 1971.

Sharp, LaVaughn and Rabin, Beatrice. **Nursing in the Coronary Care Unit.** Philadelphia: J. B. Lippincott Company, 1970.

Stephenson, Hugh E. **Cardiac Arrest and Resuscitation.** St. Louis: C. V. Mosby Company, 1974.

Periodicals

Arrhythmia Drug Treatment "Atropine in M.I. - A Rethinking" **Emergency Medicine,** December 1974.

Campbell, Lorraine, "Emphasis on Resuscitation" **A. J. N.,** 72:1290-1293, July, 1972.

"Constant Monitoring for Cardiac Dysrythmia and Blocks" **Modern Concepts of Cardiovascular Disease,** June 1970.

"Keeping C. V. P. on the Level" **Emergency Medicine,** May 1971.

Marchiondo, Kathleen, "C. V. P., The Why's and How", **Nursing 1974,** January 1974:21.

"Pop Goes the Cafe Coronary" **Emergency Medicine,** June 1974.

"Standards for Cardiopulmonary Resuscitation and Emergency Cardiac Care" **Journal of the American Medical Association,** February 1974.

REFERENCES

TRAUMA

Books

American Academy of Orthopedic Surgeons Committee on Injuries. **Emergency Care and Transportation of the Sick and Injured.** Menasna, Wisconsin: George Banta Company, Inc., 1971.

American College of Surgeons Committee on Trauma. **Early Care of the Injured Patient.** Philadelphia: W. B. Saunders Company, 1972.

Eckert, C., **Emergency Room Care.** New York: Little, Brown & Company, 1971.

Grant, Harvey and Murray, Robert. **Emergency Care.** Washington, D.C.: Robert J. Brady Company, 1971.

Martin J. I. **Trauma to the Thorax and Abdomen.** Springfield, Illinois: Charles C. Thomas Publishing Company.

Stephenson, Hugh E., **Immediate Care of the Acutely Ill and Injured,** St. Louis: C. V. Mosby Company, 1974.

Topic: Multiple Injuries

Periodicals

Chandler, James G., "The Patient with Multiple Injuries" **Hospital Topics,** February 1972:42.

"For the Man Who Needs Everything" **Emergency Medicine,** February 1974.

Nelson, Doris M., "Triage in the Emergency Suite" **Hospital Topics,** September, 1973:39-41.

"Trauma Rounds" **Emergency Medicine,** May 1974:293.

Topic: Respiratory

Periodicals

Arterial Blood Gas "Bubble, Bubble, Worth the Trouble" **Emergency Medicine,** May 1971:40-42.

"Care and Feeding of Chest Tubes" **A. J. N.,** Vol. 72:305-308.

"Chest Tubes - Basic Technique" **Nursing 1974,** December:48.

"Trauma to the Tree" **Emergency Medicine,** October 1974.

"Understanding Blood Gases" **Nursing 1973**:15-21.

Topic: Circulatory

Periodicals

Buchman, Robert, "Subclavian Venipuncture" **Military Medicine,** Vol. 134, June 1969, No. 6.

Marchiondo, Kathleen, "C. V. P., The Why's and How", **Nursing 1974,** January 1974:21.

"Keeping C.V.P. on the Level" **Emergency Medicine,** May 1971.

TRAUMA CONTINUED

Topic: Neurological

Periodicals

"A Hole in the Head Can Help" **Emergency Medicine,** September 1971.

Hinkhouse, Ann, "Craniocerebral Trauma" **A. J. N.,** 73:1719-1722, October, 1973.

Maddox, Marjorie, "Subarachnoid Hemorrhage" **American Journal of Nursing,** Vol. 74, No. 12:2199.

"Negative Shock is Deadly Shock" **Emergency Medicine,** March 1974.

Parson, L. Claire, "Respiratory Changes in Head Injuries". **A. J. N.,** 71:2187-2191, November, 1971.

"Who Needs a Head Shot" **Emergency Medicine,** September 1971.

Topic: Eye, Ear, Nose, Throat

Periodicals

"Cool Approach to a Bleeding Nose" **Emergency Medicine,** July 1971.

Havener, William, **Nursing Care of Eye, Ear, Nose, and Throat Disorders.**

"The Injured Eyeball" **Emergency Medicine.**

Weinstock, "Emergency Treatment of Eye Injuries" **A. J. N.,** 1971.

Topic: Extremity

Periodicals

Anast, George T., "The Splinting of Fractures" **Hospital Topics,** February 1972:41.

Brown, Sandy "Easing the Burden of Traction and Casts" **R. N. Magazine,** February 1975:36-41.

"Extremities in Extremis," **Emergency Medicine,** May 1974.

Hogberg, Anne, "Preventing Orthopedic Complications" **R. N. Magazine,** March 1975:34-37.

Neufeld, Alonzo J., "A 10-Minute Exam to Pinpoint Skeletal Injuries".

"Open Wounds," **Emergency Medicine,** September 1971.

Webb, Kenneth J., "Early Assessment of Orthopedic Injuries" **A. J. N.,** 74:1048-1052, June, 1974.

Publications

A Guide to the Evaluation of Serious Head Injuries. A report prepared by the Committee on Trauma. Chicago: American College of Surgeons, 55 Erie Street, 60611.

A Guide to the Initial Therapy of Soft Tissue Wounds. A report prepared by the Committee on Trauma. Chicago: American College of Surgeons, 55 E. Erie Street, 60611.

A Guide to the Prophylaxis Against Tetanus in Wound Management. A report prepared by the Committee on Trauma. Chicago: American College of Surgeons, 55 E. Erie Street, 60611.

Guide to Initial Therapy of Burns. A report prepared by the Committee on Trauma. Chicago: American College of Surgeons, 55 E. Erie Street, 60611.

MEDICAL EMERGENCIES

Books

Brunner, Lillian Sholtis, and Doris Smith Suddarth. **Lippincott Manual of Nursing Practice.** Philadelphia: J. B. Lippincott Company, 1974.

Brunner, Lillian Sholtis, **et al. Medical Surgical Nursing.** Philadelphia: J. B. Lippincott Company, 1974.

Cole, W. H. and Preston, C. B. **Emergency Care Surgical and Medical.** New York Appelton, Century, Croft.

Conn, Howard F. (ed). **Current Therapy.** Philadelphia: W. B. Saunders Company, 1974.

Eckert, C., **Emergency Room Care.** New York: Little, Brown & Company, 1971.

Grant, Harvey and Murray, Robert. **Emergency Care.** Washington, D. C.: Robert J. Brady Company, 1971.

Krupp, Marcus A., and Milton J. Chatton. **Current Diagnosis and Treatment.** Los Altos, California: Lange Medical Publications, 1974.

Lilly, Eli. **Diabetes Mellitus.** Indianapolis: Eli Lilly Company, 1973.

Martin, J. I. **Trauma to the Thorax and Abdomen.** Springfield, Illinois: Charles C. Thomas Publishing Co.

Sharp, J. C. and Marx, F. **Management of Medical Emergencies.** New York: McGraw-Hill, 1969.

Stephenson, Hugh E. **Cardiac Arrest and Resuscitation.** St. Louis: C. V. Mosby Company, 1974.

Stephenson, Hugh E., **Immediate Care of the Acutely Ill and Injured.** St. Louis: C. V. Mosby Company, 1974.

Periodicals

Amerson, J. R., "Priorities in the Management of Surgical Emergencies" **Nursing Clinics of North America.** 2:255-259, June, 1967.

Craven, Ruth F., "Anaphylactic Shock" **A. J. N.,** 72:718-721, April, 1972.

Finnerty, Frank A., "Hypertensives in Crisis" **Emergency Medicine,** 6:59-66, February, 1974.

"How to Spot a Dissecting Aneurysm" **Emergency Medicine,** May, 1974.

Lister, Joan, "Nursing Intervention in Anaphylactic Shock" **A. J. N.,** 72:720-721, April, 1972.

Maddox, Marjorie, "Subarachnoid Hemorrhage" **American Journal of Nursing,** Vol. 74, No. 12:2199.

Mansell, Ellen, **et al.,** "Patient Assessment: Examination of the Abdomen" **A. J. N.,** 74:1679-1702, September, 1974.

"Negative Shock is Deadly Shock" **Emergency Medicine,** March 1974.

Tharp, Gerald, "Shock, the Overall Mechanisms" **American Journal of Nursing,** December 1974.

Wagner, Mary M., "Assessment of Patients with Multiple Injuries" **A. J. N.,** 72:1822-1827, October, 1972.

Williams, Lester F., "The Acute Abdomen" **A. J. N.,** 71:299-303, February, 1971.

REFERENCES

SPECIAL CATEGORIES

Topic: Pediatric Emergencies

Books

Pascoe, Delmer J. and Grossman, Moses. **Guide to Pediatric Emergencies.** Philadelphia: J B. Lippincott Company, 1973.

Slonim, Balfour N., **et al. Pediatric Respiratory Therapy,** Monsey, New York: Glenn Educational Medical Services, Inc., 1974.

Smith, C. A., **The Critically Ill Child.** Philadelphia: W. B. Saunders, 1972.

Periodicals:

Reeves, Kathryn, "Acute Epiglottitis-Pediatric Emergency" **American Journal of Nursing,** Vol. 71 No. 8: 1539-1541.

"Step by Step with an Injured Child" **Emergency Medicine,** May 1974.

"When Young Hearts Stand Still," **Emergency Medicine,** May 1974.

Topic: Psychiatric Emergencies

Periodicals

Peterson, Margaret, "Understanding Defense Mechanisms" **American Journal of Nursing,** Vol. 72, No. 9:1651-1672.

"Psychiatric First Aide in an Emergency" **A. J. N.,** Vol. 72, No. 3, March 1972:497.

"The Breaking Point", **Emergency Medicine,** 6:24-40, October, 1974.

Topic: Obstetrical Emergencies

Books

Conn, Howard F., M. D., (ed) **Current Therapy 1975,** W. B. Saunders Company, Philadelphia, 1975.

Greenhill, J. P. and Friedman, Emanuel, **Biological Principles and Modern Practice of Obstetrics,** W. B. Saunders Company, Philadelphia, 1974.

Korones, S. B., **High Risk Newborn Infants, the Basis for Intensive Care Nursing.** St. Louis: C. V. Mosby.

Novak, Edmund R., **Novaks Textbook of Gynecology,** Williams and Wilkins Company, Baltimore, 1970.

Periodicals

Melber, M. A., "The Nurse's Role in Obstetrical Emergencies" **Nursing Clinics of North America.** 2:261-270, June, 1967.